VALPLAST

WE DO CHALLENGING JOBS

Arresting massive leakage 6500 ltr/min near
HRT-Adit Plug Area in Singholi Bhatwari-HEP, Uttarakhand

VALPLAST TECHNOLOGIES PRIVATE LIMITED

(Formerly Renesco India Pvt. Ltd.)

SCAN ME

VALPLAST

INTERCERT

CERTIFICATE OF REGISTRATION

INTERCERT hereby certifies that the Environmental Management System of

Valplast Technologies Pvt. Ltd.

1025 BH 10th Floor Puri Business HUB-81, High Street Sector 81, Faridabad, Faridabad, Haryana, India, 121004

Has been successfully assessed as per the requirements of

ISO 14001:2015

For the scope of

RESEARCH, DEVELOPMENT, MANUFACTURE, EXPORT & SUPPLY OF NON-WOVEN FABRICS, PVC WATER STOPS, PVC SHEETS, THERMOPLASTIC INSULATING MATS, VARIOUS PLASTIC PIPES, PROFILE, FITTING AND ALLIED PRODUCTS.

Initial Certification Date	July 07, 2021
Certificate Issue Date	July 07, 2021
Surveillance Validity Date	July 06, 2023
Recertification Date	July 06, 2024

Registration Number: ICI-EM-2107043

Issued on behalf of InterCert
Head - Certifications

KAB-EC-66

INTERCERT

CERTIFICATE OF REGISTRATION

INTERCERT hereby certifies that the Quality Management System of

Valplast Technologies Pvt. Ltd.

1025 BH 10th Floor Puri Business HUB-81, High Street Sector 81, Faridabad, Faridabad, Haryana, India, 121004

Has been successfully assessed as per the requirements of

ISO 9001:2015

For the scope of

RESEARCH, DEVELOPMENT, MANUFACTURE, EXPORT & SUPPLY OF NON-WOVEN FABRICS, PVC WATER STOPS, PVC SHEETS, THERMOPLASTIC INSULATING MATS, VARIOUS PLASTIC PIPES, PROFILE, FITTING AND ALLIED PRODUCTS.

Initial Certification Date	July 07, 2021
Certificate Issue Date	July 07, 2021
Surveillance Validity Date	July 06, 2023
Recertification Date	July 06, 2024

Registration Number: ICI-QM-2107042

Issued on behalf of InterCert
Head - Certifications

KAB-QC-75

INTERCERT

CERTIFICATE OF REGISTRATION

INTERCERT hereby certifies that the Occupational Health & Safety Management System of

Valplast Technologies Pvt. Ltd.

1025 BH 10th Floor Puri Business HUB-81, High Street Sector 81, Faridabad, Faridabad, Haryana, India, 121004

Has been successfully assessed as per the requirements of

ISO 45001:2018

For the scope of

RESEARCH, DEVELOPMENT, MANUFACTURE, EXPORT & SUPPLY OF NON-WOVEN FABRICS, PVC WATER STOPS, PVC SHEETS, THERMOPLASTIC INSULATING MATS, VARIOUS PLASTIC PIPES, PROFILE, FITTING AND ALLIED PRODUCTS.

Initial Certification Date	July 07, 2021
Certificate Issue Date	July 07, 2021
Surveillance Validity Date	July 06, 2023
Recertification Date	July 06, 2024

Registration Number: ICI-OS-2107044

Issued on behalf of InterCert
Head - Certifications

KAB-OC-46

European Certification

CERTIFICATE OF CONFORMITY

This is to Certify that the technical documentation of the Organization

VALPLAST TECHNOLOGIES PRIVATE LIMITED

1025 BH, 10TH FLOOR, PURI BUSINESS HUB - 81, HIGH STREET SECTOR 81, FARIDABAD, HARYANA, - 121004, INDIA

THE EUROPEAN REGULATION : (EC) NO 1907/2006
THE EUROPEAN REGULATION : (EU) 2020/1245

VALPLAST WP PVC 02

THE EUROPEAN REGULATION : (EC) NO 1907/2006
THE EUROPEAN REGULATION : (EU) 2020/1245

Certificate No. CE-2046

ISR INTERNATIONAL STANDARDS REGISTRATIONS

APPROVED

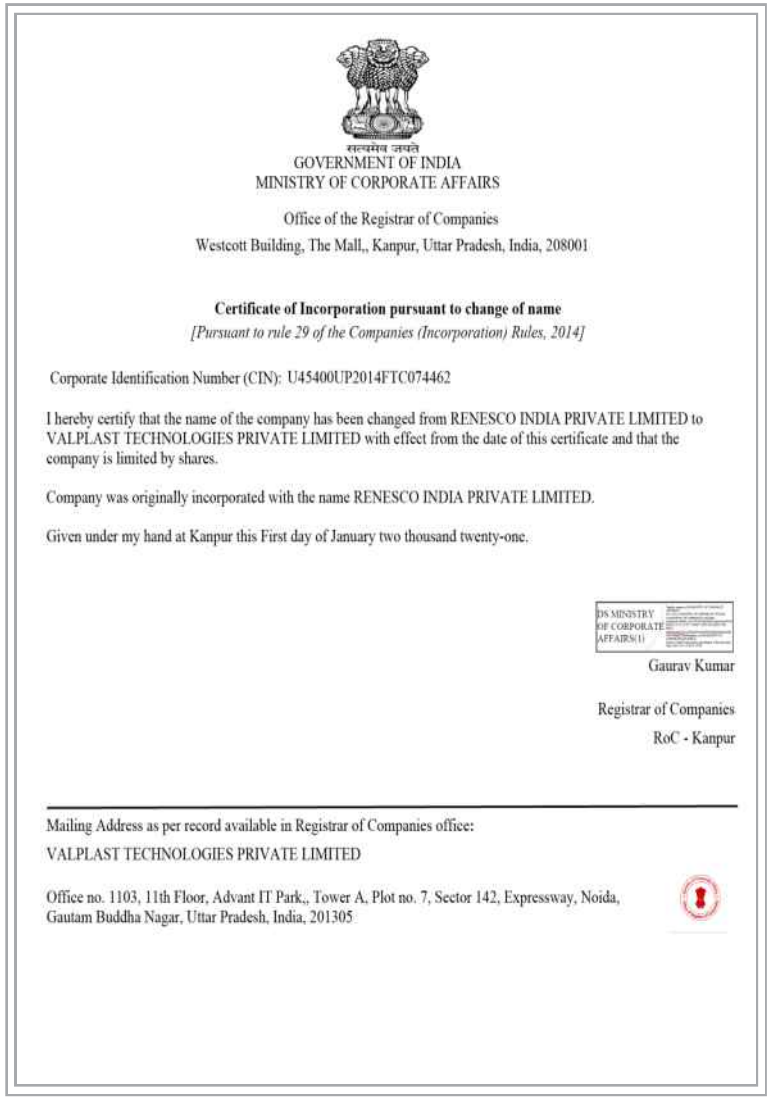
International Standards Registrations

WHO WE ARE

- Renesco India Pvt Ltd is now Valplast Technologies Pvt Ltd w.e.f January 2021 (Refer certificate of incorporation)
- We started operations in India from 2014.
- We are specialized in sealing of underground structures and systems and accompanies projects from planning to development of special procedures.
- Our main competency is in the area of flexible sealing/waterproofing, Injection Grouting etc in the underground construction (tunnels, caverns, shafts) and technical sealing (tanks, bonds and landfills).
- We are also competent in executing slope stabilization, earth retention & road works with cellular confinement technology.
- Core drilling (mineral extraction) is also our field of interest.
- We are also involved in Precast Concrete structures in Residential towers as well as in R.E walls.

RENESCO IS NOW VALPLAST TECHNOLOGIES

CERTIFICATE OF INCORPORATION



सत्यमेव जयते
GOVERNMENT OF INDIA
MINISTRY OF CORPORATE AFFAIRS

Office of the Registrar of Companies
Westcott Building, The Mall,, Kanpur, Uttar Pradesh, India, 208001

Certificate of Incorporation pursuant to change of name
[Pursuant to rule 29 of the Companies (Incorporation) Rules, 2014]

Corporate Identification Number (CIN): U45400UP2014FTC074462

I hereby certify that the name of the company has been changed from RENESCO INDIA PRIVATE LIMITED to VALPLAST TECHNOLOGIES PRIVATE LIMITED with effect from the date of this certificate and that the company is limited by shares.

Company was originally incorporated with the name RENESCO INDIA PRIVATE LIMITED.

Given under my hand at Kanpur this First day of January two thousand twenty-one.

DS MINISTRY OF CORPORATE AFFAIRS(1)

Gaurav Kumar

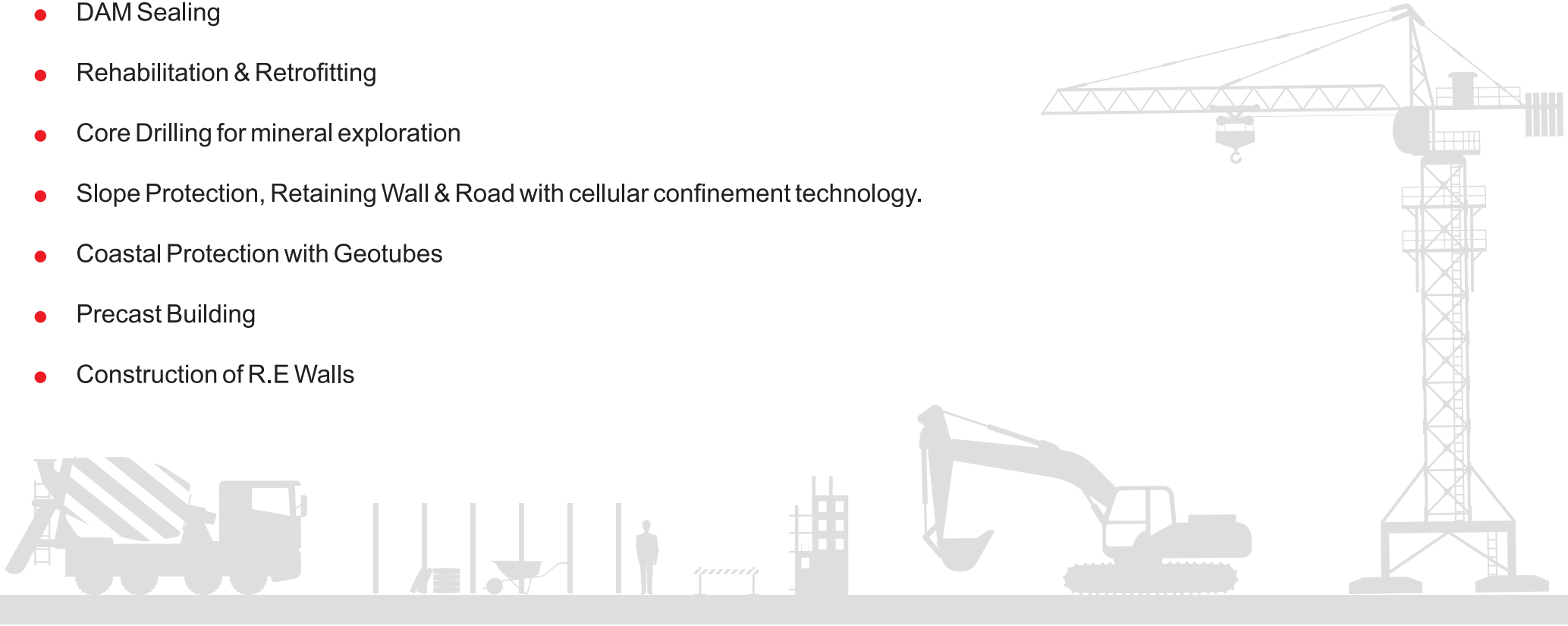
Registrar of Companies
RoC - Kanpur

Mailing Address as per record available in Registrar of Companies office:
VALPLAST TECHNOLOGIES PRIVATE LIMITED

Office no. 1103, 11th Floor, Advant IT Park,, Tower A, Plot no. 7, Sector 142, Expressway, Noida, Gautam Buddha Nagar, Uttar Pradesh, India, 201305

AREA OF SPECIALIZATION

- Injection Grouting
- Tunnel Waterproofing
- Underground/Submarine waterproofing.
- Waterproofing in Buildings
- DAM Sealing
- Rehabilitation & Retrofitting
- Core Drilling for mineral exploration
- Slope Protection, Retaining Wall & Road with cellular confinement technology.
- Coastal Protection with Geotubes
- Precast Building
- Construction of R.E Walls



CORE COMPETENCE

ALL TYPES OF WATERPROOFING

INJECTION GROUTING

CELLULAR CONFINEMENT TECHNOLOGY

CORE DRILLING

WATERPROOFING

PVC-P TUNNEL APPLICATION

PVC-P UNDERGROUND WATERPROOFING

RETROFITTING OF STRUCTURES

SPRAY-APPLIED WATERPROOFING

SYSTEM GUARANTEE

INJECTION GROUTING

CHEMICAL INJECTION

CEMENTITIOUS GROUTING

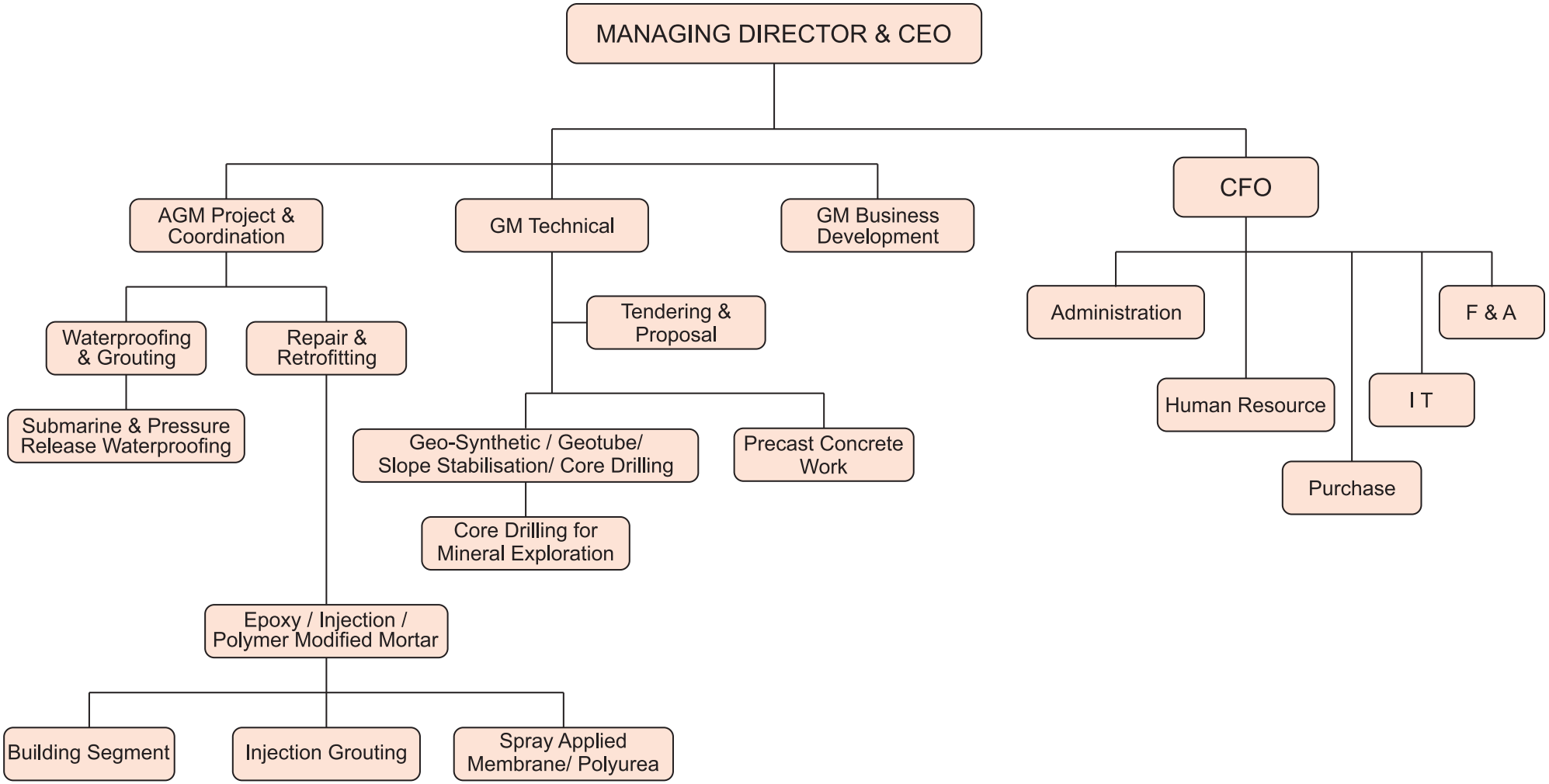
MONITORING

GROUT INJECTION CURTAIN

CORE DRILLING

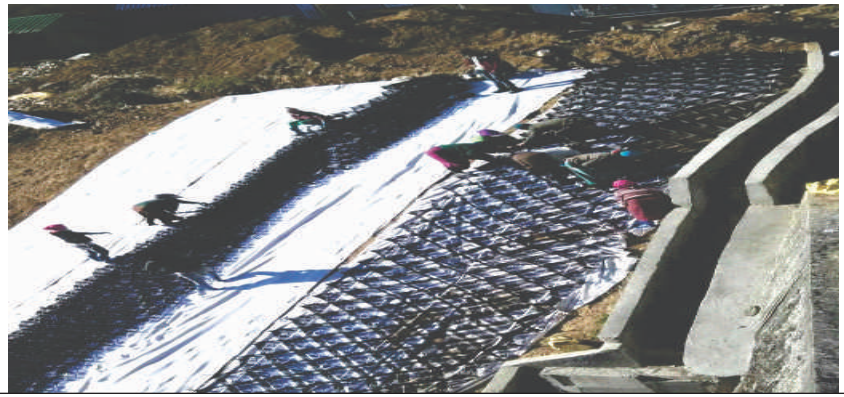
CORE DRILLING FOR MINERAL (GRAPHITE, BAUXITE ETC.) EXTRACTION

ORGANOGRAM


MANAGING DIRECTOR & CEO
AGM Project & Coordination
GM Technical
GM Business Development
CFO
Waterproofing & Grouting
Repair & Retrofitting
Tendering & Proposal
Administration
F & A
Submarine & Pressure Release Waterproofing
Geo-Synthetic / Geotube/ Slope Stabilisation/ Core Drilling
Precast Concrete Work
Human Resource
I T
Core Drilling for Mineral Exploration
Purchase
Epoxy / Injection / Polymer Modified Mortar
Building Segment
Injection Grouting
Spray Applied Membrane/ Polyurea

CELLULAR CONFINEMENT TECHNOLOGY

RETAINING WALL



SLOPE STABILIZATION

ROAD

SLOPE PROTECTION

PRECAST WORK

WHY VALPLAST

- Technical Competence
- For installation of PVC membrane DVS Code must be followed as international guideline, we have more than 50 certified well trained PVC welders for this purpose.
- Our PVC welders are certified by TUV SUD, the company authorizes individuals that they are competent to do welding work as per directive of DVS 2212.
- Also we have team of experienced & qualified injection grouting experts.Our technocrats are capable of designing the pre/post injection pattern with analysis of suitable injection grouting material / or combination based on site conditions.
- Matchless quality with complete documentation following our internal standard protocols/documentation.
- Professional approach of work.
- Meeting the client targets before time. We have achievement of delivering 32,000 sqm of waterproofing works from a single month in NHAI Road Tunnel (Banihal, J & K).
- We have achievement of retrieving TBM in 2017, TBM was stucked since 2010 in variable Himalayan geology of Tapovan- Vishnugad HEP, Uttarakhand.
- Have experience of executing more than one million sqm of PVC waterproofing works in various prestigious rail tunnel, road tunnel, facility tunnel, underground building projects with covering system warranty of 5 to 10 years.

COMPLETED PROJECTS

S. No.	Project Name	Client	Contract Type	Project Location	Scope of Work	Major Quantity	Unit
1.	NHAI, T80 Banihal	NECL	Sub Contract	Banihal, J & K	Pressure Release Water Proofing (PVC Membrane)	3,28,580	sqm.
2.	RVNL, Kadappa	Gamya Infrastructures Pvt. Ltd.	Sub Contract	Kadappa	Pressure Release Water Proofing (PVC Membrane)	96,818	sqm.
3.	RVNL, Kadappa	Drillcon Infrastructures Pvt. Ltd.	Sub Contract	Kadappa	Pressure Water Proofing (PVC Membrane)	61,172	sqm.
4.	RVNL Package-5, Uttarakhand	NECL	Sub Contract	Uttarakhand	Pressure Release Water Proofing (PVC Membrane)	3,000	sqm.
5.	Defence	NECL	Sub Contract	North India	Pressure Release Water Proofing (PVC Membrane)	93,742	sqm.
6.	Defence	CSC Co. Pvt. Ltd.	Sub Contract	South India	Pressure Release Water Proofing (PVC Membrane)	43,000	sqm.
7.	Defence	RVR Projects Pvt. Ltd.	Sub Contract	South India	Pressure Release Water Proofing (PVC Membrane)	30,000	sqm.

COMPLETED PROJECTS

S. No.	Project Name	Client	Contract Type	Project Location	Scope of Work	Major Quantity	Unit
8.	Defence	Indian Army	Direct	North-East India	Pressure Release Water Proofing (PVC Membrane)	270	sqm.
9.	Defence	NECL	Sub Contract	North India	Pressure Release Water Proofing (PVC Membrane)	10,328	sqm.
10.	Defence	CSC Co. Pvt. Ltd.	Sub Contract	South India	Pressure Release Water Proofing (PVC Membrane)	9,000	sqm.
11.	NHIDCL, Barkot, Silkyara	NECL	Sub Contract	Uttarakhand	Pressure Release Water Proofing (PVC Membrane)	10,000	sqm.
12.	Defence	Indian Army	Sub Contract	North-East India	Pressure Release Water Proofing (PVC Membrane)	57,015	sqm.
13.	Defence	Indian Army	Direct	North-East India	Pressure Release Water Proofing (PVC Membrane)	1,715	sqm.
14.	Defence	CSC Co. Pvt. Ltd.	Sub Contract	South India	Pressure Water Proofing (PVC Membrane)	4,224	sqm.

COMPLETED PROJECTS

S. No.	Project Name	Client	Contract Type	Project Location	Scope of Work	Major Quantity	Unit
15.	Defence	Indian Army	Direct	North-East India	Pressure Water Proofing (PVC Membrane)	10,480	sqm.
16.	Defence	Indian Army	Direct	North-East India	Pressure Water Proofing (PVC Membrane)	3,081	sqm.
17.	Defence	Indian Army	Direct	North-East India	Pressure Water Proofing (PVC Membrane)	7,399	sqm.
18.	Defence	Indian Army	Direct	North-East India	Pressure Water Proofing (PVC Membrane)	11,640	sqm.
19.	Defence	Indian Army	Direct	North-East India	Pressure Water Proofing (PVC Membrane)	3,766	sqm.
20.	Defence	Indian Army	Direct	North-East India	Pressure Water Proofing (PVC Membrane)	2,030	sqm.
21.	Defence	Indian Army	Direct	North-East India	Pressure Water Proofing (PVC Membrane)	752	sqm.

COMPLETED PROJECTS

S. No.	Project Name	Client	Contract Type	Project Location	Scope of Work	Major Quantity	Unit
22.	Defence	RVR Projects Pvt. Ltd.	Sub Contract	North East India	Pressure Water Proofing (PVC Membrane)	2,866	sqm.
23.	Defence	Larsen & Toubro	Sub Contract	South India	Pressure Release Water Proofing (PVC Membrane) with Compartmentalization & Provison of Post Injection System	40,000	sqm.
24.	Water Proofing for the Newly Constructed Bihar Vidhan Mandal Basement, Patna	Building Construction Department, Bihar	Direct Contract	Patna, Bihar	Injection Grouting, Cavity Drainage PVC Membrane Waterproofing	8,500	sqm.
25.	Defence	Vishal Infrastructure Ltd.	Sub Contract	South India	Pressure Release Water Proofing	6,500	sqm.
26.	Defence	Ahluwalia Contracts	Sub Contract	North India	Pressure Water Proofing (PVC Membrane Integrated Waterproofing)	19,577	sqm.
27.	Defence	Indian Army	Direct	North-East India	Work for Supply and Erection works for Restoration of Helidrome (Geoweb works (Slope Stabilization & Retaining Wall), RCC Drain & Culvert)	843	sqm.

COMPLETED PROJECTS

S. No.	Project Name	Client	Contract Type	Project Location	Scope of Work	Major Quantity	Unit
28.	Defense	NECL	Sub Contract	North India	2 Component PU	8,302	kg
29.	NTPC, Chemical Grouting at SFT (Underground Works) at Tapovan	Rithwik Projects Pvt.	Sub Contract	Tapovan	Pressure Grouting with 2 component PU	5,000	kg
30.	HAL, Odisha	HAL	Direct Contract	Odisha	Roof Waterproofing	14,500	sqm.
31.	Singoli Batwari	L & T	Sub Contract	Uttrakhand	Arresting water leakage in HRT / Plug ADIT @ 6500 Liters per min by means of combination of PU/Urea Silicate grouts.	20,000	kg
32.	NTPC, Tapovan	HCC	Sub Contract	Uttarakhand	Preface Tunnel Injection for Retrieval & Advanceent of TBM	1,00,000	kg
33.	Multi Level Car Parking - Kanpur	Ganpati Mega	Sub Contract	Kanpur	Basement Water Proofing - Multi Level Car Parking (PVC Membrane)	5,358	sqm.

COMPLETED PROJECTS

S. No.	Project Name	Client	Contract Type	Project Location	Scope of Work	Major Quantity	Unit
34.	Gurugram Paras	Paras	Direct Contract	Gurugram	PU Injection	379	Packers
35.	Gurugram M3M	M3M	Sub Contract	Gurugram	Sunken Area Waterproofing	6,000	sqm.
36.	Gurugram Paras	Paras	Direct Contract	Gurugram	Toilet and Sunken Area Waterproofing	14,200	sqm.
37.	Emaar Colonnade - Gurugram	Capacite Infraprojects Limited	Direct Contract	Gurugram	Deck Slab Waterproofing	1,800	sqm.
38.	Phase 2A Golf Estate - M3M	Ludhiana Builders	Sub Contract	Gurgaon	APP Membrane	2,143	sqm.
39.	Drilling in Dulsulma & Ponchi Area of Palamu District of Jharkhand	Department of Industry, Mines & Geology	Direct	Jharkhand	Core Drilling for Graphite	1,850	Rm
40.	Drilling in Rewaratu Area of Palamu District of Jharkhand	Department of Industry, Mines & Geology	Direct	Jharkhand	Core Drilling for Graphite	400	Rm

COMPLETED PROJECTS

S. No.	Project Name	Client	Contract Type	Project Location	Scope of Work	Major Quantity	Unit
41.	Loadhapat Mineral Bloack of Gumla	Department of Industry, Mines & Geology	Direct	Jharkhand	Core Drilling for Bauxite	100	Rm
42.	Iron Ore-Gua Mines	Department of Industry, Mines & Geology	Direct	Jharkhand	Core Drilling for Iron Ore	346	Rm
43.	Defence	RVR Projects Pvt. Ltd.	Sub Contract	South India	Pressure Release Waterproofing (PVC Membrane)	2,200	sqm.
44.	Repair and Maintenance of Ridge Reservoir at Shimla	Shimla Jal Prabhandan Nigam limited	Direct Contract	Himachal Pradesh	Elastomeric Polyurea Coating, Injection, RCC work	3,915	sqm.
45.	Defence	Larsen & Toubro / CS Construction	Sub Contract	South India	Pressure Water Proofing (PVC Membrane Integrated Waterproofing)	20,547	sqm.
46.	RVNL, Talcher	Mosh Varaya Infrastructure Limited	Sub Contract	Odisha	Pressure Release Water Proofing (PVC Membrane)	17,000	sqm.
47.	Shimla Smaet City, Dhalli Tunnel Shimla	Sai Engineering Foundation & Sai Shakti Solutions LLP	Sub Contract	HP	Pressure Release Water Proofing (PVC Membrane)	3,894	sqm.

ONGOING PROJECTS

S. No.	Project Name	Client	Contract Type	Project Location	Scope of Work	Major Quantity	Unit
1.	NHAI, Pandoh bypass Takoli section	AFCONS Infrastructure Ltd.	Sub Contract	HP	Pressure Release Water Proofing (PVC Membrane)	50,000	sqm.
2.	NHAI, Bilaspur-Mandi Section	Nirmanvridhi Constructions Pvt. Ltd.	Sub Contract	HP	Pressure Release Water Proofing (PVC Membrane)	60,840	sqm.
3.	NHAI, Bilaspur-Mandi Section	J. S. Construction Company	Sub Contract	HP	Pressure Water Proofing (PVC Membrane Integrated Waterproofing)	27,000	sqm.
4.	KRCL, Reasi	Vensar Construction Company Limited	Sub Contract	J & K	Pressure Release Water Proofing (PVC Membrane)	2,50,000	sqm.
5.	IRCON, Sangaldaan	Patel Engineering Ltd.	Sub Contract	J & K	Pressure Release Water Proofing (PVC Membrane)	1,08,000	sqm.
6.	NHAI	GVPR Engineering	Sub Contract	Maharashtra	Pressure Release Water Proofing (PVC Membrane)	11,000	sqm.
7.	Defence	Supercast Technologies Pvt. Ltd.	Sub Contract	Delhi	Precast of Building	8,000	sqm.

ONGOING PROJECTS

S. No.	Project Name	Client	Contract Type	Project Location	Scope of Work	Major Quantity	Unit
8.	RVNL, Koraput	Gamya Infrastructure Service Pvt. Ltd.	Sub Contract	Odisha	Pressure Release Water Proofing (PVC Membrane)	30,030	sqm.
9.	RVNL, Rishikesh - Karanprayag Pkg-9	Dilip Buildcon Limited	Sub Contract	Uttrakhand	Pressure Release Water Proofing (PVC Membrane)	50,000	sqm.
10.	Defence	Larsen & Toubro	Sub Contract	South India	Pressure Release Water Proofing (PVC Membrane) with Compartmentalization & Provison of Post Injection System	1,22,400	sqm.
11.	Defence	Larsen & Toubro / CS Construction	Sub Contract	North India	Pressure Water Proofing (PVC Membrane Integrated Waterproofing)	40,125	sqm.
12.	Sevk-Rangpo	ITD cementation India Limited	Sub Contract	East India	Pressure Release Water Proofing (PVC Membrane)	24,800	sqm.

PRESENCE IN INDIA

- **CORPORATE OFFICE**
  Unit No.1109, 11th Floor, Tower-A, Advant IT Park, Plot No.7, Sector 142, Noida
- **HEAD OFFICE**
  1025, 10th Floor, Puri Business Hub, 81 High Street, Sector-81, Faridabad, Haryana-121004
- Completed Project
- Running Project

VALPLAST

VALPLAST

SELECTED REFERENCES

VALPLAST

VALPLAST

TUNNELING

TUNNEL EXCAVATION AND ROCK SUPPORT

Tunnel Excavation and Rock Support

Region	Trongsa
Country	Bhutan
Type	Excavation & Rock Support Work in ADITS & HRT
Main Client	Mangdechhu Hydroelectric Project Authority
Execution of the Work	Marti India Pvt. Ltd.
Construction Period	2012 - 2013

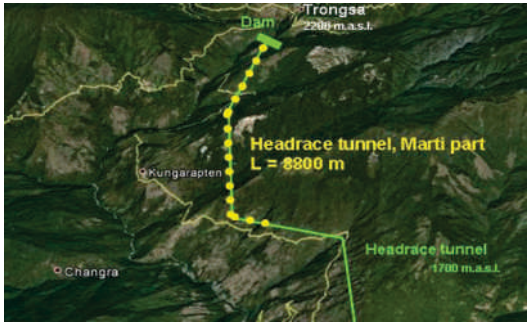
PROJECT DESCRIPTION

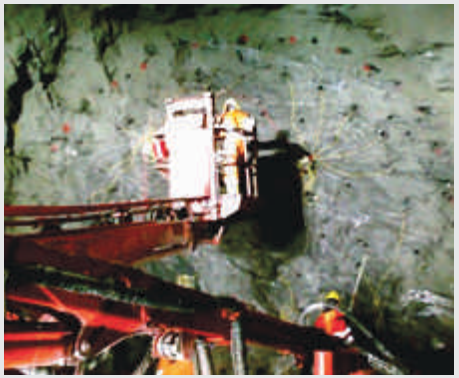
The company was engaged in Mangdechhu Hydroelectric Project (720 MW), one amongst the ten Hydroelectric projects planned under the 10,000 MW hydropower development by the year 2020 programme of Royal Government of Bhutan. The company was involved in the construction of headrace tunnel of the said project from ADIT I (additional diversion intermediate tunnel), ADIT II, and ADIT III.

During the period M/s Marti India Pvt. Ltd. achieved 196 Rm of tunnel construction from one face in month of June, 2013 which is till date the maximum progress achieved in Bhutan ever from single face. The company also carried out maximum of 368 Rm of tunnel excavation from all the faces together undertaken by the company in month of September, 2013.

SCOPE OF WORK

- Excavation of Tunnel by Drilling and Blasting Method by means of Drill Jumbo in Rock class Class I, II , III, IV & V followed by multi drifting in no rock class.
- Plain , polyfibre Shotcreting works by means of robotic arm spray machine.
- Supply and Installation of 25mm & 32mm dia Rock Bolts , SDA, Water expandable anchors.
- Supply and Installation of 25mm & 32mm dia Forepole.





VALPLAST®

PRECAST

PRECASTING

CONSTRUCTION OF RESIDENTIAL TOWERS BY PRECAST CONCRETE ELEMENTS

Region	Delhi
Type	Residential Towers by Precast Concrete
Main Contractor	Girdhari Lal Construction Pvt. Ltd. New Delhi
Execution of the Work	Valplast Technologies Pvt. Ltd.
Construction Period	2022 - 2023

Fabrication & Manufacturing of Solid Precast Concrete Element with Provision of Shear Keys, Connecting Loops, Dowel tubes and Proper Lifting Accessories for Walls, Beams, Slabs, Stairs, Column Etc, of Various Thickness, Shape and Size of Different Concrete Grades Manufactured in Controlled Factory Envimoment With Approved Methodology Including Moulds, Beams Moulds, Coloumn Moulds, Staircase Mould,Facade Mould, Etc, Mixing, Transporting And Placing of Concrete, Vibrating, Curing, Finishing, Making Necessary Cutout holes of Required Sizes for Services, Yard Handling & Stacking All Complete As Per IS 11447:1985

SCOPE OF WORK

Production & Erection of Soild Precast elements for multiple towers of different floors (upto S+7)

- Production of Solid Precast Elements
- Reinforcement work for RCC Precast Elements
- Erection & Installation of Precast Elements
- Erection & Installation of Prestressed/Precast Hollowcore Slabs
- Providing & Grouting of Dowel Tubes/ Shear key joints of Precast members with M-60 grade cementitious grout
- Applying & Providing weatherproof sealant on joints of Precast members
- Supply and apply of Groutec Coupler of different dia for columns and panels.

VALPLAST

INJECTION GROUTING

TAPOVAN-VISHNUGAD HEP, NTPC, UTTARAKHAND

Grouting Work in Hydro Electric Project

Region	Uttarakhand (India)
Type	Chemical Grouting
Client	NTPC
Main Contractor	Hindustan Construction Company (HCC)
Execution of the Work	Renesco India Private Limited
Construction Period	2017 - 2018

PROJECT DESCRIPTION

The Tapovan Vishnugad power plant is a 520MW run-of-river project being constructed on Dhauliganga River in Charmoli District of Uttarakhand, India.

Construction of the hydroelectric power project began in November 2006. Power production from the plant was expected to begin in 2012, but sluggish tunnel excavation works and flash floods in June 2013 delayed its inauguration,

The construction work was severely affected by the flash floods in June 2013. The diversion tunnel was completely washed away along with the under-construction cofferdam Approach road to the silt flushing tunnel was also damaged.

The Contract for again resuming the tunnel with TBM is awarded to M/S HCC Construction in 2016 with the available resources and deployment of new technologies if any to complete the project, HCC has done there efforts to advance the TBM section of HRT but due to squeezing of Rock, Overburden, Gushing of water and Class VI rocks (Augen Gneiss) with shear seams and clay band at unpredictable distance with highly weathered condition the advancement has become challenge.

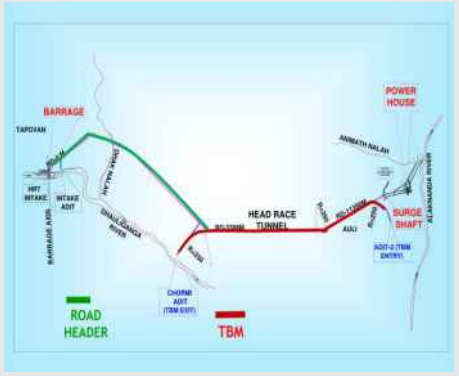
The solution for the challenges was to use Highly customised Resins/ Ureasilicates/ Polyurethanes etc with deployment of New Technologies and modern Grouting equipment which has created a success story by advancing TBM by 52 Meter and Crossed almost 75% of the Marked shear Zone in the alignment.

SCOPE OF SERVICE

- Providing and Injecting applying PU Grout
- Chemical grouting with two component Polyurethane (PU) and Urea Silicate

Quantity:

Pressure Grouting of 2 component PU : 100 MT



TAPOVAN-VISHNUGAD HEP, NTPC, UTTARAKHAND

Grouting Work in Hydro Electric Project

Region	Uttarakhand (India)
Type	Chemical Grouting
Client	NTPC
Main Contractor	Rithwik Projects Private Limited
Execution of the Work	Renesco India Private Limited
Construction Period	2018 - 2020

PROJECT DESCRIPTION

The Tapovan Vishnugad power plant is a 520MW run-of-river project being constructed on Dhauliganga River in Chamoli District of Uttarakhand, India.

Major works at the Tapovan Vishnugad power project include the construction of the barrage, head race and tail race tunnels, power house, and switchyard.

The construction work was severely affected by the flash floods in June 2013. The diversion tunnel was completely washed away along with the under-construction cofferdam. Approach road to the silt flushing tunnel was also damaged.

Since after Flash flood in 2013 the Construction work was badly affected and the HRT with TBM (Tunnel Boring Machine) got stuck at 6 km from the portal.

Challenges to resume the work was to stop the running water with slush and to hold the squeezing of highly weathered rock mass by Consolidation. Stabilisation.

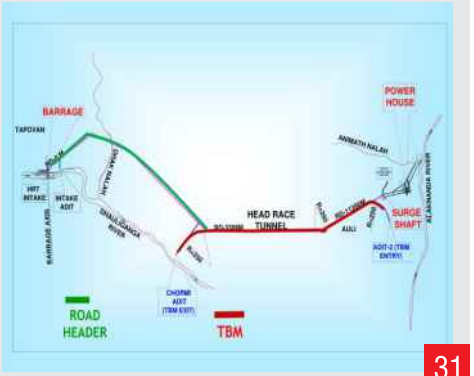
The solution for the challenges was to use Highly customised Resins/ Ureasilicates/ Polyurethanes etc with deployment of New Technologies and modern Grouting equipment, which has created a success story by advancing TBM by 52 Meter and Crossed almost 75% of the Marked shear Zone in the alignment.

SCOPE OF SERVICE

- Providing and Injecting/applying PU Grout
- Chemical grouting with two component Polyurethane (PU) and Urea Silicate

Quantity:

Pressure Grouting of 2 component PU : 5000 kg



JODHPUR FACILITY TUNNEL, NORTH REGION

Two Component PU Grouting

Region	Rajasthan (India)
Type	PU Injection
Main Contractor	Navayuga Engineering Company Limited
Execution of the Work	Renesco India Private Company
Construction Period	2016

PROJECT DESCRIPTION

Grouting with polyurethane resins provides a very effective method of improvement of mechanical and sealing properties of soils and rocks. One of the most vital attributes of polyurethanes is their ability to turn into foam when in contact with water. Polyurethane grout functions in three ways: Firstly, it forms a chemical bond with the concrete surface area secondly; it reacts swiftly with water to form an expanding foam, thus creating a mechanical anchor by entering the pores and voids; and thirdly; by expanding, it forms a compression seal within the cracks, joints, or voids to act as a water stop.

SCOPE OF WORK

- Water stopping injection in rock surface and concrete structure.
- Drilling holes, placing of packers, pumping of 2 component polyurethane injections

Quantity:

Polyurethane Material : 10 Tonne

BANIHAL QAZIGUND, J & K

Two Component PU Grouting

Region	Kashmir (India)
Type	PU Injection
Main Contractor	Navayuga Engineering Company Limited
Execution of the Work	Renesco India Private Limited
Construction Period	2021

PROJECT DESCRIPTION

Grouting with polyurethane resins provides a very effective method of improvement of mechanical and sealing properties of soils and rocks. One of the most vital attributes of polyurethanes is their ability to turn into foam when in contact with water. Polyurethane grout functions in three ways: Firstly, it forms a chemical bond with the concrete surface area: secondly, it reacts swiftly with water to form an expanding foam, thus creating a mechanical anchor by entering the pores and voids; and thirdly. by expanding, it forms a compression seal within the cracks, joints, or voids to act as a water stop.

SCOPE OF WORK

- Drilling and fixing of NRV injection packers in RC members.
- Supply and injection of suitable two component fast reacting Polyurethane Injection material by means of high-pressure injection pump.
- Supply and injection of suitable one component highly flexible with close cell Polyurethane with catalyst with 800% expansion by means of suitable pump.

Quantity :

Polyurethane Material : 6 Tonne

SINGAULI BHATWARI HYDRO PROJECT, UTTARAKHAND

Arresting Leakage of 6500Lit/Min

Region	Uttarakhand (India)
Type	Chemical Grouting with single / double component polyurethane (PU) & Urea Silicate
Main Contractor	Larsen & Toubro
Execution of the Work	Valplast Technologies Private Limited
Construction Period	2021

PROJECT DESCRIPTION

The Singoli-Bhatwari hydro-electric power plant is 99MW run-of- river project being constructed on Mandakini River in Uttarakhand, India.

Wet commissioning of project was successfully done on 21st September 2020. By the time client noticed some water ingress from Adit-3 HRT Plug but situation was not vulnerable initially but situation became panic when water ingress from HRT plug abruptly increases to 6000 lit./min.

As initial remedy client tried arresting the water ingress with cementitious grouting followed by grouting with single component hydrophobic polyurethane with their own engineering design & pattern. But client failed to arrest the water ingress & called up Valplast Technologies Pvt. Ltd. for a technical solution.

Experts from Valplast Technologies Pvt. Ltd visited the site, collected technical data & proposed a technical solution which was further reviewed by client's design team & finally approved for final go ahead.

SITE CONDITION

Heavy water ingress of approx. 6000 ltr/min observed in invert of Adit-3 Gate Plug Concrete structure. Further it was concluded based on site visit that water ingress is through gap between RCC foundation of Gate Plug concrete & parent rock.

PROPOSED SOLUTION

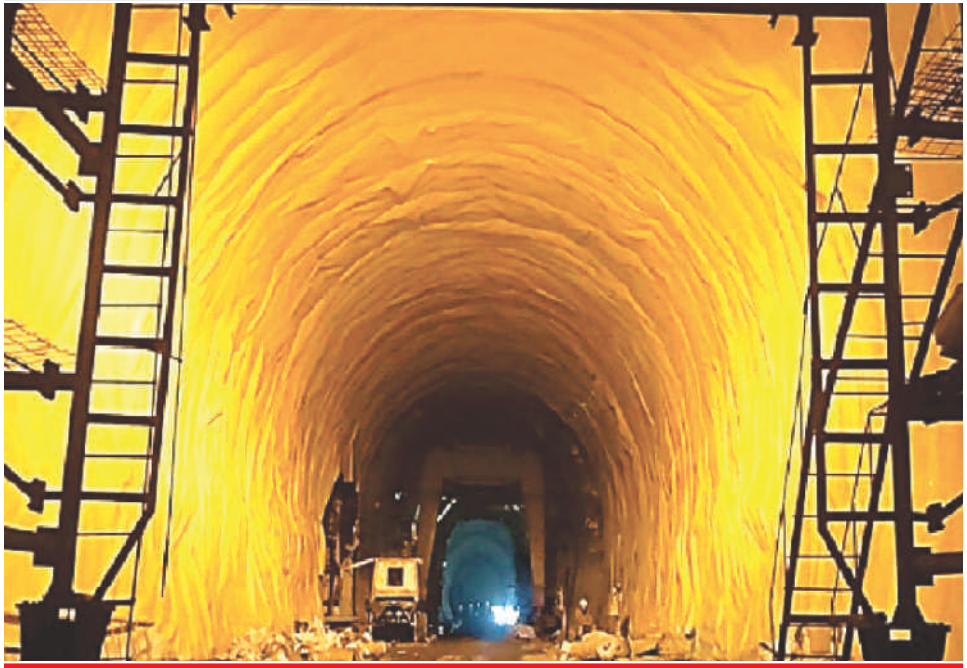
Water ingress needs to be stopped with sequential injection grouting which shall have combination of customized grouting materials & mechanism to achieve the goal. Following drill hole pattern designed to perform the grouting work.

VALPLAST®

TUNNEL WATERPROOFING

(PRESSURE RELEASE CONDITION)

RAIL TUNNEL, RVNL, KADAPA, ANDHRA PRADESH



Tunnel Water Proofing with PVC Membrane

Region	Andhra Pradesh (India)
Type	Railway Tunnel Waterproofing
Client	Rail Vikas Nigam Ltd. (RVNL)
Main Contractor	Gamya Infrastructures Pvt. Ltd. & Drillcon Infrastructures Pvt. Ltd.
Execution of the Work	Renesco India Private Limited
Construction Period	2017-2018

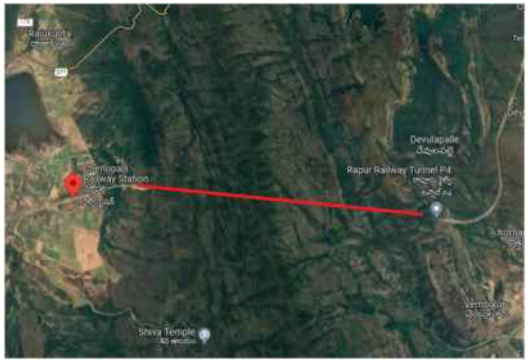
PROJECT DESCRIPTION

The project, when completed, will provide rail connectivity to the gateway port at Krishnappa on the east coast. Pressure release waterproofing system has to be applied on the surface of tunnel made for Indian Railway, using PVC membrane of 2 mm thickness as a main waterproofing component. In pressure release waterproofing system drainage is a critical component, that has to be installed along with waterproofing membrane.

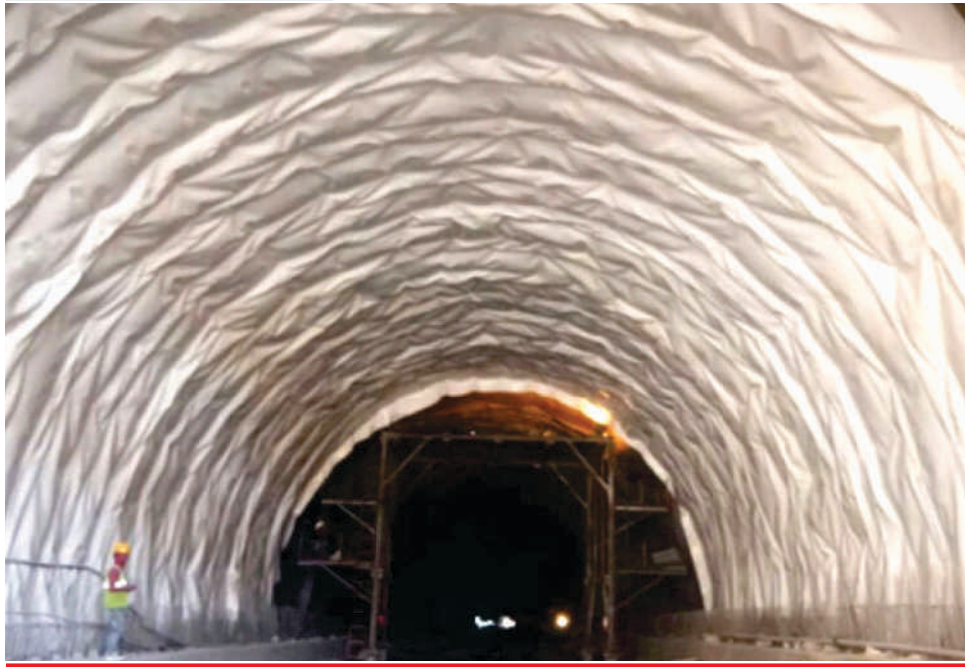
SCOPE OF WORK

Supply and installation of following itmes for around 1,60,000 Sqm surface area of the tunnel

- PVC membrane 2 mm thick with signal layer
- Non woven Polypropylene based Geotextile with minimum weight of 500 GSM
- System installed as per DVS 2212 guidelines by trained and certified PVC welders.



RAIL TUNNEL, USBRL, KRCL, REASI, J & K



Tunnel Water Proofing with PVC Membrane

Region	Jammu & Kashmir (India)
Type	Tunnel Waterproofing
Client	KRCL (Konkan Railway)
Main Contractor	Vensar Construction Company Limited
Execution of the Work	Valplast India LLP
Construction Period	2019-2020

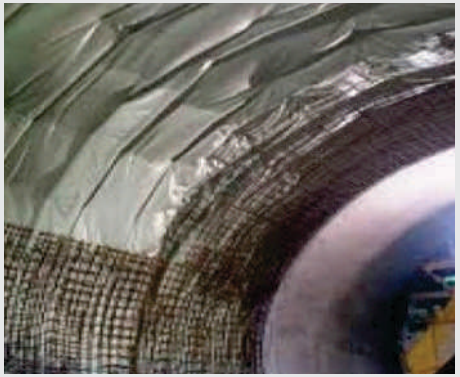
PROJECT DESCRIPTION

Pressure release waterproofing system has to be applied, using PVC membrane 2.0 mm thick, on the surface of the tunnel. Drainage system being a key component of pressure release waterproofing system has to be installed along with waterproofing membrane and protection sheet has to be used for the protection of waterproofing membrane.

SCOPE OF WORK

Supply and installation of following items for around 25000 Sqm surface area of the tunnel

- PVC membrane 2 mm thick with signal layer
- Non woven Polypropylene based Geotextile with minimum weight of 700 GSM
- **System installed as per DVS 2212 guidelines by trained and certified PVC welders.**



RAIL TUNNEL, USBRL, KRCL, REASI, J & K

Tunnel Water Proofing with PVC Membrane

Region	Jammu & Kashmir (India)
Type	Tunnel Waterproofing
Client	KRCL (Konkan Railway)
Main Contractor	SAI-SRM Projects
Execution of the Work	Valplast India LLP
Construction Period	2019-2020

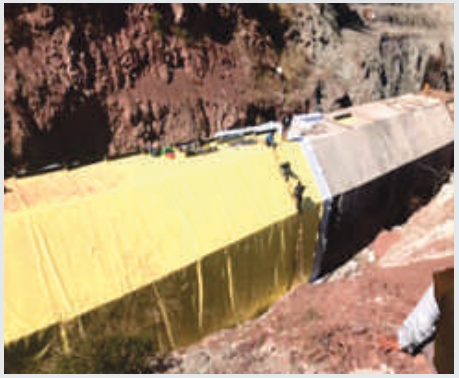
PROJECT DESCRIPTION

Pressure release waterproofing system has to be applied, using PVC membrane 2.0 mm thick. on the surface of the tunnel Drainage system being a key component of the system that releases the water pressure and diverts water into the drain, has to be installed along with waterproofing membrane

SCOPE OF WORK

Supply and installation of following Items for around 3,50,000 Sqm surface area of the tunnel

- PVC membrane 2mm thick with signal layer
- Non woven Polypropylene based Geotextile with minimum weight of 700 g/m^2 installed between substrate and membrane as a separation layer
- Drainage board with Compressive strength 723 KN/m^2
- Non woven Polypropylene based Geotextile with minimum weight of 700 g/m^2 installed over the membrane as a protective layer
- **System installed as per DVS 2212 guidelines by trained and certified PVC welders.**



RAIL TUNNEL, USBRL, IRCON, SANGALDAN, J & K

Tunnel Water Proofing with PVC Membrane

Region	Jammu & Kashmir (India)
Type	Tunnel Waterproofing
Client	IRCON
Main Contractor	Patel Engineering Limited
Execution of the Work	Valplast India LLP
Construction Period	2019-2020

PROJECT DESCRIPTION

Pressure release waterproofing system has to be applied, using PVC membrane 2.0 mm thick, on the surface of the tunnel. Drainage system being a key component of the system that releases the water pressure and diverts water into the drain, has to he installed along with waterproofing membrane.

SCOPE OF WORK

Supply and installation of following items for around 25,000 Sqm surface area of the tunnel

- PVC membrane 2 mm thick with signal layer
- Non woven Polypropylene based Geotextile with minimum weight of 700 GSM
- System installed as per DVS 2212 guidelines by trained and certified PVC welders.

ROAD TUNNEL, NHAI, BANIHAL-QAZIGUND, J & K

Tunnel Water Proofing with PVC Membrane

Region	Jammu & Kashmir (India)
Type	Highway Tunnel Waterproofing
Client	National Highway Authority of India (NHAI)
Main Contractor	Navayuga Engineering Company Ltd.
Execution of the Work	Renesco India Private Limited
Construction Period	2016-2021

PROJECT DESCRIPTION

The project is a double tube tunnel consisting of two parallel tunnels, one for each direction of travel. Each tunnel is 7 m wide and has two lanes of road. Total length of the tunnel is 15 km. Corridor between two tubes inside the tunnel after every 500 m has been developed and this can be utilized in any emergency case in either tube. The tunnel will have forced ventilation for extracting smoke and stale air and infusing fresh air. Pressure release waterproofing system has to be applied on the surface of tunnel, using PVC membrane of 2 mm thickness as a main waterproofing component and the mechanically protection sheet, called the exterior sheet of Geotextile having minimum weight of 600 g/m^2

SCOPE OF WORK

Supply and installation of following Items for around 3,28,580 Sqm surface area of the tunnel

- PVC membrane 2 mm thick with signal layer
- Non woven Polypropylene based Geotextile with minimum weight of 600 g/m^2
- **System installed as per DVS 2212 guidelines by trained and certified PVC welders.**

ROAD TUNNEL, NHIDCL, SILKYARA BEND, UTTARAKHAND

Tunnel Water Proofing with PVC Membrane

Region	Uttarakhand (India)
Type	Tunnel Waterproofing
Client	NHIDCL
Main Contractor	Navayuga Engineering Company Limited
Execution of the Work	Renesco India Private Limited
Construction Period	2019-2020

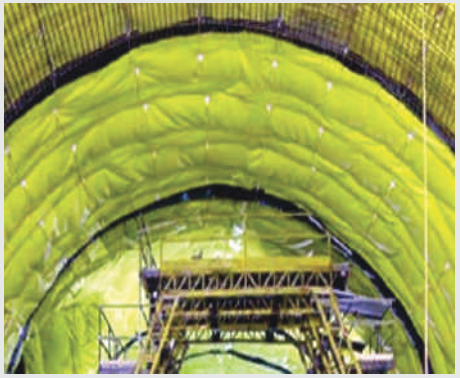
PROJECT DESCRIPTION

Pressure release waterproofing system has to be applied on the surface of tunnel using PVC membrane 2.0 mm thick with drainage system to be installed along with waterproofing membrane and protection sheet. Formation of compartment as per gantry length with the use of waterbar.

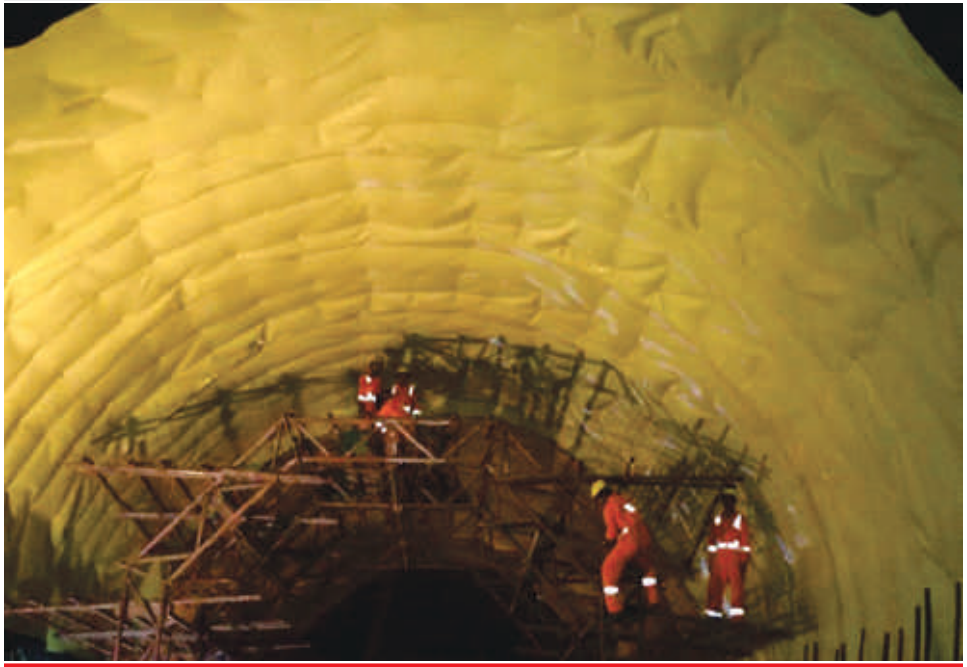
SCOPE OF WORK

Supply and installation of following items for around 80,000 Sqm surface area of the tunnel

- PVC membrane 2 mm thick with signal layer
- Non woven Polypropylene based Geotextile 300 g/m^2 with minimum weight of 500 g/m^2
- PVC Waterbar 280 mm width with four anchors of 30 mm high
- Drainage board with dimple height of 8mm, Compressive strength > 200 KN/m^2
- Non woven Polypropylene based Geotextile with minimum weight of 300 g/m^2
- **System installed as per DVS 2212 guidelines by trained and certified PVC welders.**



FACILITY TUNNEL, NORTH REGION



Tunnel Water Proofing with PVC Membrane

Region	Himachal Pradesh (India)
Type	Tunnel Waterproofing
Main Contractor	Navayuga Engineering Company Limited
Execution of the Work	Renesco India Private Limited
Construction Period	2014-2015

PROJECT DESCRIPTION

Pressure release waterproofing system has to be applied, using PVC membrane 2.0 mm thick, on the surface of the tunnel. Drainage system being a key component of pressure release waterproofing system has to be installed along with waterproofing membrane and protection sheet has to be used for the protection of waterproofing membrane.

SCOPE OF WORK

Supply and application of following items for around 93,742 Sqm surface area of the tunnel.

- A combined drainage and protection layer made of HDPE
- 4.0 mm thick Tundrain type B drainage mesh
- PVC membrane 2.0 mm thick with signal layer
- Protection sheet PVC-P 2.0 mm thick
- PVC Waterbar 280 mm wide with four anchors 30 mm heigh to form compartments and seal construction joints.
- PVC termination tape 220 mm wide
- **System installed as per DVS 2212 guidelines by trained and certified PVC welders.**

FACILITY TUNNEL, NORTH-EAST REGION

Tunnel Water Proofing with PVC Membrane

Region	Assam (India)
Type	Tunnel Waterproofing
Main Contractor	RVR Project Pvt. Ltd.
Execution of the Work	Valplast India LLP
Construction Period	2016-2018

PROJECT DESCRIPTION

Pressure release waterproofing system has to be applied on the surface of tunnel using PVC membrane of 2.0 mm thick with drainage system and the formation of compartments using waterbar as per gantry length to prevent whole system affected in case of any damage due to any reason, in future, and the affected area will be a compartment only it will be easy for treatment of that area only.

SCOPE OF WORK

Supply and installation of following itmes for around 60,000 Sqm surface area of the tunnel

- PVC membrane 2 mm thick with signal layer
- Non woven Polypropylene based Geotextile with minimum weight of 500 g/m^2
- HDPE dimpled sheet Dimple Board with dimple height 8.0 mm with minimum weight of 500 g/m^2 having compressive strength >200 kN
- Dimple Board with dimple height 8.0 mm thick with minimum weight of 1000 g/m^2 for horizontal surface
- PVC waterbar 280 mm width with four anchors 30 mm high
- System installed as per DVS 2212 guidelines by trained and certified PVC welders

FACILITY TUNNEL, SOUTH REGION

Tunnel Water Proofing with PVC Membrane

Region	Andhra Pradesh (India)
Type	Tunnel Waterproofing
Main Contractor	C.S. Construction Company Pvt. Ltd.
Execution of the Work	Renesco India Private Limited
Construction Period	2015-2016

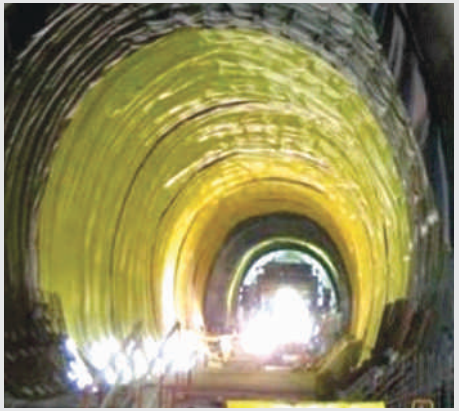
PROJECT DESCRIPTION

Pressure release waterproofing system has to be applied on the surface of tunnel using PVC membrane 2.0 mm thick with drainage system. to be installed along with waterproofing membrane and protection sheet. Formation of compartment as per gantry length with the use of waterbar.

SCOPE OF WORK

Supply and installation of following itmes for around 60,000 Sqm surface area of the tunnel

- PVC membrane 2 mm thick with signal layer
- Non woven Polypropylene based Geotextile with minimum weight of 500 GSM
- Drainage board with Dimple 8.0 mm height with minimum weight of 500 GSM for vertical surface
- Drainage board with Dimple height 8.0 mm with minimum weight of 1000 GSM for horizontal surface
- PVC waterbar 280 mm width with four anchors 30 mm high
- PVC Termination tape 220 mm wide
- Protection sheet 2.0 mm thick
- System installed as per DVS 2212 guidelines by trained and certified PVC welders.



FACILITY TUNNEL, SOUTH REGION

Tunnel Water Proofing with PVC Membrane

Region	Andhra Pradesh
Type	Tunnel Waterproofing
Main Contractor	RVR Project Pvt. Ltd.
Execution of the Work	Renesco India Private Ltd.
Construction Period	2015-2016

PROJECT DESCRIPTION

Pressure release waterproofing system has to be applied on the surface of tunnel using PVC membrane of 2.0 mm thick with drainage system and the formation of compartments using waterbar as per gantry length to prevent whole system affected in case of any damage due to any reason, in future and the affected area will be a compartment only it will be easy for treatment of that area only

SCOPE OF WORK

Supply and installation of following items for around 30,000 Sgm surface area of the tunnel

- PVC membrane 2.0 mm thick with signal layer
- Non woven Polypropylene based Geotextile with minimum weight of 550-600 g/m^2.
- Dimple Board with dimple height 8.0 mm with minimum weight of 550-600 g/m^2 for vertical surface (overt)
- Dimple Board with dimple height 8.0 mm thick with minimum weight of 1000g/m^2 for horizontal surface
- Protection sheet 2.0 mm thick
- PVC waterbar 280 mm width with four anchors 30 mm high
- **System installed as per DVS 2212 guidelines by trained and certified PVC welders.**

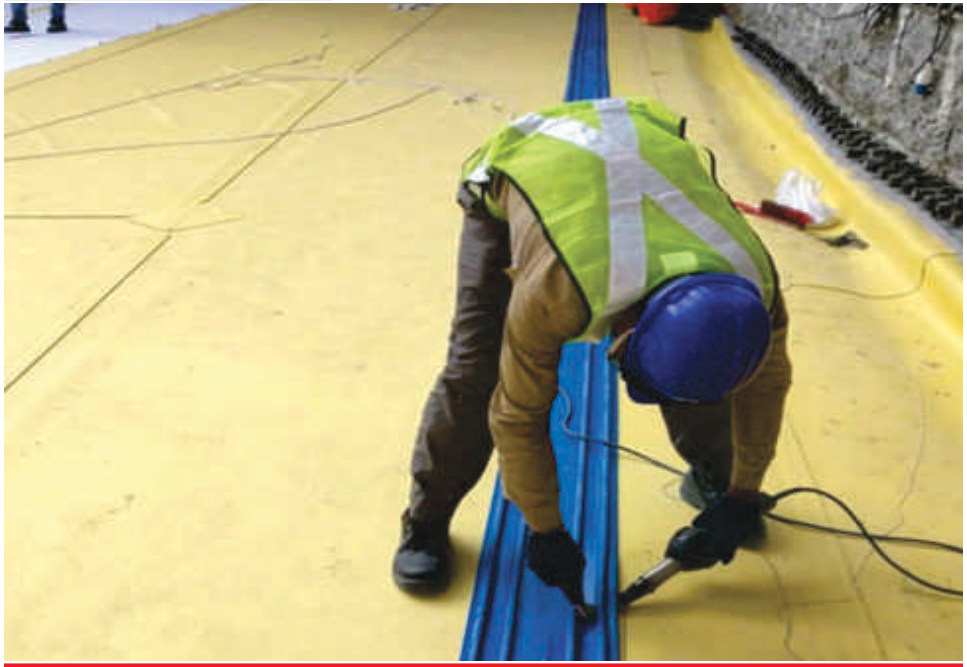
VALPLAST

VALPLAST®

WATERPROOFING & LINING OF CAVE

(POST CONSTRUCTION – ARTIFICIAL PRESSURE RELEASE CONDITION)

FACILITY TUNNEL, NORTH-EAST REGION



Waterproofing of Underground Structures

Region	India
Type	Pressure Water Proofing (PVC Membrane) and Grouting
Main Contractor	Indian Army
Execution of the Work	Renesco India Private Limited
Construction Period	2017-2018

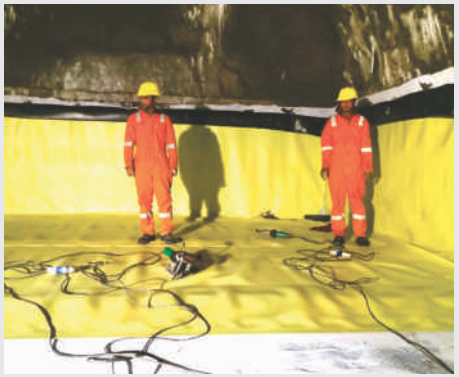
PROJECT DESCRIPTION

Pressure waterproofing system has to be applied, using PVC membrane of 2.0 mm thick, on the underground structures and PU gel is for the grouting purpose to stop water ingress anywhere in the already built up structures.

SCOPE OF WORK

Supply and apply of following items to cover all the surface areas of the structures

- Supply of NRV plastic packers 12.0X150.0 mm
- Supply of Hydrophilic polyurethane gel with electrically driven pump
- Supply of 2.0 mm thick high density polyethylene mesh as drainage/protection layer
- Supply of 2.0 mm thick PVC-P waterproofing membrane
- Supply of 4.0 mm thick welded wire mesh made up of mild steel
- Supply of 8.0 mm down concrete of mix grade M35 with provision of spray upto 40.0mm thickness
- Supply of PVC anchors (it is a hard pvc shell with flange and welded with pvc waterproofing membrane for fixation of welded wire mesh in combination of pvc waterproofing membrane.
- System installed as per DVS 2212 guidelines by trained and certified PVC welders



FACILITY TUNNEL, NORTH-EAST REGION

Pressure Release Water Proofing of Cave

Region	Arunachal Pradesh (India)
Type	Pressure relase water proofing (PVC Membrane)
Main Contractor	Indian Army
Execution of the Work	Renesco India Private Ltd.
Construction Period	2017-2018

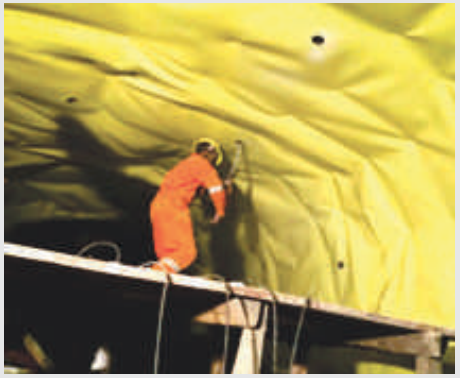
PROJECT DESCRIPTION

Work at high altitude makes any protect challenging Main challenge of the project was its extreme locations and rough weather and terrain From excavation has to be done through drill blast. and pressure release waterproofing system has to be applied using PVC membrane of 2 0 mm thick, on the surface of caves which will prevent any water seepage or flow coming from cave surface and the water will be diverted to drainage system that is one of a main component of pressure release waterproofing system

SCOPE OF WORK

Supply and installation of following items to cover all the surface areas of the structures

- Dimple drainage board with minimum 8.0 mm dimple height compressive strength 250 kN/m^2
- Dimple drainage board with minimum 8.0 mm dimple height compressive strength 350 kN/m^2
- 2.0 mm thick PVC-P waterproofing membrane
- 1.5 mm thick protection sheet
- 4.0 mm thick welded wire mesh made up of mild steel
- Spray of 8.0 mm down concrete of mix grade M35 over installed waterproofing system 100 mm thickness in vertical and 150 mm in invert surface
- Spray of 8.0 mm down concrete of mix grade M35 over rock profile behind the existing fibre sheet
- Laying of perforated PVC drain pipe covered with filter media of size 20 mm-30 mm
- PVC anchor (it is a hard pvc shell with flange and welded with pvc membrane for fixation of welded wire mesh)
- Termination of PVC membrane by means of high quality adhesive
- **System Installed as per DVS 2212 guidelines by trained and certified PVC welders**



VALPLAST

VALPLAST®

UNDERGROUND BUILDING WATERPROOFING

(UNDER PRESSURE CONDITION)

UG BUILDING, SOUTH REGION

Waterproofing of Underground RCC Structure

Region	Tamilnadu (India)
Type	Underground Pressure Waterproofing
Main Contractor	CS Construction Company Private Limited
Execution of the Work	Renesco India Private Ltd.
Construction Period	2014-2015

PROJECT DESCRIPTION

Pressure waterproofing system also known as submarine system of waterproofing has to be applied, using PVC membrane of 2.0 mm thick, on the underground RCC structures. The system will prevent entry of water into the structure from outside surroundings and will facilitate a bone dry structure inside against presssurised ground water condition.

SCOPE OF WORK

Supply and Installation of two layer water Proofing System comprising of..

- 2 mm thick PVC Membrane with signal layer
- Non woven Polypropelene based Geotextile with minimum weight of 500 g/m^2
- Dimple Board for drainage with dimple height 8 mm and minimum weight of 500 g/m^2
- Dimple Board for drainage with dimple height 8 mm and minimum weight of 1000 g/m^2
- High strength XPS board 25mm thick for protection layer
- Re-Injectable Hose.
- **System installed as per DVS 2212 guidelines by trained and certified PVC welders.**

UG BUILDING, NORTH-EAST REGION

Waterproofing of Underground RCC Structure

Region	Meghalaya (India)
Type	Underground Specialized RCC Integrated Structure
Main Contractor	Larsen & Toubro Limited
Execution of the Work	Valplast Technologies Pvt. Ltd.
Construction Period	2017-2021

PROJECT DESCRIPTION

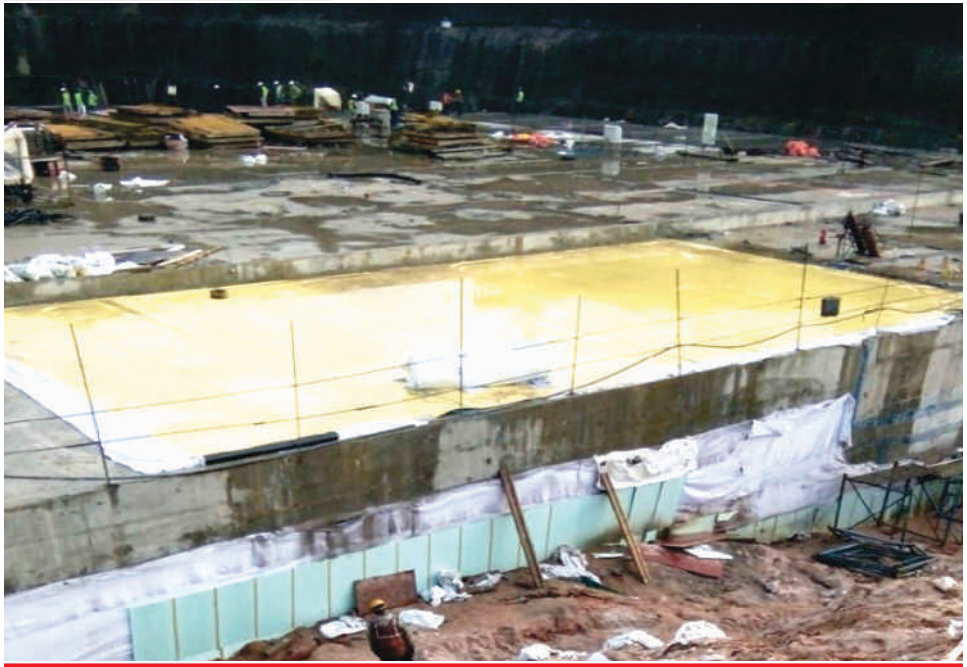
Pressure waterbar / PVC tape system also known as submarine system of waterproofing has to be applied, using PVC membrane of 2.0 mm thick, on the underground RCC structures. Formation of compartments of size 100-150 sqm has to be made using PVC waterbar / PVC tape. Each compartment is fitted with five pcs of injection flanges for the purpose of grouting as second line of defence if any damage occurs in future due to any reason. The system will prevent entry of water into the structure from outside surroundings and will facilitate a bone dry structure inside against presssurised ground water condition.

SCOPE OF WORK

Supply and apply of following items for around 20,000 Sqm surface area of the structures

- PVC membrane 2.0 mm thick with signal layer
- Non-woven Polypropylene based Geotextile with minimum weight of 300 g/m^2.
- Waterbar 280 mm wide with four anchors 30mm height to form compartments and seal construction joints
- PVC termination tape 220 mm wide to form compartments and seal construction joints
- P.E Sheet 300 micron sliding layer
- High strength XPS board 25 mm thick for protection layer
- Injection flanges
- Re-Injectable Hose.
- **System installed as per DVS 2212 guidelines by trained and certified PVC welders.**

UG BUILDING, NORTH REGION



Waterproofing of Underground RCC Structure

Region	Delhi (India)
Type	Underground Specialized RCC Integrated Structure
Main Contractor	Ahluwalia Contract (I) Ltd.
Execution of the Work	Valplast Technologies Pvt. Ltd.
Construction Period	2017-2021

PROJECT DESCRIPTION

Pressure waterproofing system (Submarine system of waterproofing) has to be applied, using PVC membrane of 2.0 mm thick, on the underground RCC structures including underground tanks. with the formation of compartments using PVC waterbar / PVC tape and each compartment is fitted with five pcs of injection flanges for the purpose of grouting as second line of defence if any damage occurs in future due to any reason. the system will prevent entry of water into the structure from outside surroundings and will facilitate a bone dry structure inside against presssurised ground water condition.

SCOPE OF WORK

Supply and apply of following itmes for around 20,000 Sqm surface area of the structures

- PVC membrane 2.0 mm thick with signal layer
- Non-woven Polypropylene based Geotextile with minimum weight of 300 g/m^2
- Waterbar 280mm wide with four anchors 30 mm height to form compartments and seal construction joints
- PVC termination tape 220 mm wide to form compartments and seal construction joints
- P. E. Sheet 300 micron sliding layer
- High strength XPS board 25mm thick for protection layer
- Injection flanges
- Re-Injectable Hose
- **System installed as per DVS 2212 guidelines by trained and certified PVC welders.**

UG BUILDING, SOUTH REGION

Waterproofing of Underground RCC Structure

Region	Andaman island (India)
Type	Underground Specialized RCC Integrated Structure
Main Contractor	Larsen & Toubro Limited
Execution of the Work	Valplast Technologies Pvt. Ltd.
Construction Period	2017-2021

PROJECT DESCRIPTION

The project is in the vicinity of Andaman sea and therefore an extremely effective pressure waterproofing system i.e submarine system of waterproofing has to be applied; using PVC membrane of 2.0 mm thick, on the underground RCC structures including underground tanks. Formation of compartments of size 100-150 sqm with Waterbar/PVC Tape, to localise any defect or damage in future due to any reason. Each compartment is fitted with five pcs of injection flanges for the purpose of grouting as second line of defence if any damage occurs in future due to any reason. the system will prevent entry of water into the structure from outside surroundings and will facilitate a bone dry structure inside against presssurised ground water condition.

SCOPE OF WORK

Supply and apply of following items for around 20,000 Sqm surface area of the structures

- PVC membrane 2mm thick with signal layer
- Non-woven Polypropylene based Geotextile with minimum weight of 300 g/m^2.
- Waterbar 280 mm wide with four anchors 30 mm height to form compartments and seal construction joints
- PVC termination tape 220 mm wide to form compartments and seal construction joints
- P.E. Sheet 300 micron sliding layer
- High strength XPS board 25mm thick for protection layer
- Injection flanges
- Re-Injectable Hose
- **System installed as per DVS 2212 guidelines by trained and certified PVC welders.**

UG BUILDING, NORTH EAST REGION

Waterproofing of Underground Structure

Region	India
Type	Pressure Water Proofing (PVC Membrane)
Main Contractor	Indian Army
Execution of the Work	Renesco India Private Ltd.
Construction Period	2016-2017

PROJECT DESCRIPTION

Pressure waterproofing system (Submarine system of waterproofing) has to be applied, using PVC membrane of 2.0 mm thick, on the underground RCC structures including underground tanks. with the formation of compartments using PVC waterbar / PVC tape and each compartment is fitted with five pcs of injection flanges for the purpose of grouting as second line of defence if any damage occurs in future due to any reason. the system will prevent entry of water into the structure from outside surroundings and will facilitate a bone dry structure inside against presssurised ground water condition.

SCOPE OF WORK

Supply and apply of following itmes for around 20,000 Sqm surface area of the structures

- PVC membrane 2.0 mm thick with signal layer
- Non-woven Polypropylene based Geotextile with minimum weight of 300 g/m^2.
- Waterbar 280 mm wide with four anchors 30 mm height to form compartments and seal construction joints
- PVC termination tape 220 mm wide to form compartments and seal construction joints
- P. E. Sheet 300 micron sliding layer
- High strength XPS board 25mm thick for protection layer
- Injection flanges
- Re-Injectable Hose
- **System installed as per DVS 2212 guidelines by trained and certified PVC welders.**

UG BUILDING, NORTH REGION

Waterproofing of Underground RCC Structure

Region	Haryana (India)
Type	Underground Specialized RCC Integrated Structure
Main Contractor	Larsen & Toubro Limited
Execution of the Work	Valplast Technologies Pvt. Ltd.
Construction Period	2017-2021

PROJECT DESCRIPTION

The crucial factor about this project is it's ground water level that makes the project a difficult job therefore an effective submarine waterproofing system has to be installed, with careful supervision. Submarine system or pressure waterproofing system is used with PVC membrane of 2.0 mm thickness, on the underground RCC structures including underground tanks, with the formation of compartments using watrebar/PVC tape of size 100-150 sqm. each compartment is fitted with five pcs of injection flanges for the purpose of grouting as second line of defence if any damage occurs in future due to any reason. the system will prevent entry of water into the structure from outside surroundings and will facilitate a bone dry structure inside against presssurised ground water condition.

SCOPE OF WORK

Supply and apply of following itmes for around 20,000 Sqm surface area of the structures.

- PVC membrane 2.0 mm thick with signal layer
- Non-woven Polypropylene based Geotextile with minimum weight of 300g/m2.
- Waterbar 280 mm wide with four anchors 30mm height to form compartments and seal construction joints
- PVC tape 220 mm wide to form compartments and seal construction joints
- P.E Sheet 300 micron sliding layer
- High strength XPS board 25mm thick for protection layer
- Injection flanges
- **System installed as per DVS 2212 guidelines by trained and certified PVC welders.**

UG BUILDING, KDA, KANPUR, UTTAR PRADESH

Multilevel Car Basement Waterproofing

Region	Uttar Pradesh (India)
Type	Basement Waterproofing with PVC Membrane
Client	Ganpati Mega Builders (India) Pvt. Ltd.
Main Contractor	Ganpati Mega Builders (India) Pvt. Ltd.
Execution of the Work	Renesco India Private Ltd.
Construction Period	2016-2017

PROJECT DESCRIPTION

The project is situated in the heart of Kanpur Parade Multilevel Car parking. The proposed multi-level parking lot at Parade Ground, billed as the only solution to the parking and traffic chaos of the Walled City, seems to have hit a roadblock. Waterproofing of the basement area is a very crucial factor for its long lasting working condition and needs full attention towards careful waterproofing work.

SCOPE OF WORK

- Providing and laying 300 GSM Geotextile
- 2mm thick synthetic membrane of plasticised PVC
- Providing and laying 300 GSM Geotextile as per compartmentalisation at 250 Sqm applying pepetas as per specification
- Providing and installing hydro swelling bar in all construction joints
- The waterproofing membrane shall be solvent free two component spray applied system mixed in specific ratio after applying moisture insensitive epoxy primer & sand broadcasting as per specification
- Providing and installing a minimum protection layer of 8.0 mm thick delta boxed or equivalent make
- **System installed as per DVS 2212 guidelines by trained and certified PVC welders.**

VALPLAST®

BUILDING BASEMENT WATERPROOFING

(POST CONSTRUCTION – CAVITY DRAINAGE SYSTEM)

BIHAR VIDHAN MANDAL, BCD, PATNA, BIHAR

Water Proofing Work for the Newly Constructed Bihar Vidhan Mandal

Region	Patna, Bihar (India)
Type	Basement Waterproofing by Injection, Cavity Drainage and PVC Membrane
Client	Building Construction Department, Patna
Execution of the Work	Renesco India Private Ltd.
Construction Period	2019-2020

PROJECT DESCRIPTION

Water Proofing for the Newly Constructed Bihar Vidhan Mandal Basement (North, South & Central) at Patna with 5 year warranty and maintenance. (Techno Commercial Bid).

SCOPE OF WORK

- Providing & applying Systematic Grouting in whole Basement & retaining wall using Hydrofoam Single Component as per methodology provided by us and approved by IIT Roorkee.
- Making profile using concrete with M25 grade of thickness 150 mm for maintaining proper slope for drainage of seepage water
- Making Sump & drain at suitable place as per requirement. Also supplying & Installation of self starting automatic pump to drain out collected water from the sump.
- On the prepared profile supplying & Providing Cavity Drainage system to facilitate the seeped water flow into the sump The minimum depth of Cavity in cavity drainage system should be 100 mm
- Preparation of 1.5 meter wide and 300 mm thick plinth protection by using 1.5 meter deep toe wall at the end to present ingress of External water into the basement.
- 5 year operation & maintenance cost with warranty
- **System installed as per DVS 2212 guidelines by trained and certified PVC welders.**

VALPLAST

ROOF WATERPROOFING

RCC ROOF, HAL, KORAPUT, ODISHA

Waterproofing of RCC Shell Roofs of Overhaul

Region	Odisha (India)
Type	Roof Waterproofing
Client	Hindustan Aeronautics Limited
Main Contractor	Hindustan Aeronautics Limited
Execution of the Work	Renesco India Private Ltd.
Construction Period	2017-2018

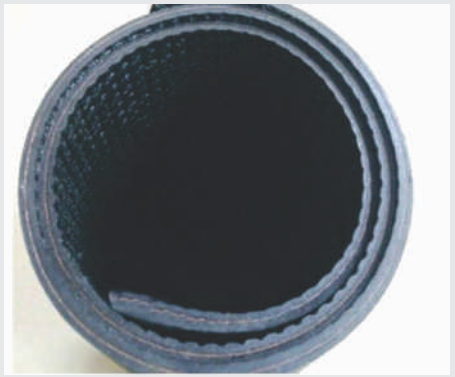
PROJECT DESCRIPTION

Sunabeda is an industrial city in the state of Odisha, India; located in the valleys of the Koraput region. The Engine division and Sukhoi division of the aircraft manufacturing company Hindustan Aeronautics Limited (HAL), a public sector undertaking (PSU) of Ministry of Defence is in Sunabeda.

The project involves Water proofing treatment with APP membrane to the RCC shell roofs of Overhaul, Assembly shop and flat roofs of various shops inside factory

SCOPE OF WORK

- PCC in roof, kurbs or mud stop, rounded or chamfered on edges over RCC roof
- 20.0mm thick screed bed or bedding layer with (1:4) CM and integral water proofing compound (Liquid) (a.) 0.2% of weight of cement
- APP (Atactic Polypropylene Polymer) modified prefabricated five layered 3mm thick water proofing membrane, black finished reinforced with non - woven polyester matt.
- 1st coat of bitumen primer applied (a) 0.40Ltr. Smt of the surface area.
- Burnt clay brick works in CM(1 :4) the compressive strength should not be less than 35 kg/cm2
- R.C.0 (1:1.5:3) Nominal mix, in fins, fascia,parapet etc and for the similar work using 12.50 mm hard granite graded stone aggregates I
- TOR MS steel reinforcement (TMT Bars) confirming to IS of 10mm dia and over for RCC works
- Treatment to the expansion joint both horizontal and vertical surface over RCC roof and brick wall to a width of expansion gap of about 25mm to 50mm
- 2 mm thick pre formed filler for expansion joints (bitumen impregnated Shalitex board or eqivalent material)
- 25 mm thick pre - formed filler for expansion joints (bitumen impregnated Shalitex board or eqivalent material)
- Filling the expansion joint with grade A joint sealing compound of polysulphide or polyurethane joint sealant
- Two coats of cement painting over a coat of Alkali resistant priming paint



VALPLAST

POLYUREA SPRAY APPLIED WATERPROOFING

RESERVIOR, SJPNL, SHIMLA, HIMACHAL PRADESH

Repair of Ridge Reservoir at Shimla (Himachal Pradesh)

Region	Himachal Pradesh (India)
Type	Reservoir Repair using epoxy bonding agent, silicate PU Injection, Polymer Modified Mortar & Micro Concrete etc.
Client	Shimla Jal Parbandhan Nigam Ltd.
Execution of the Work	Renesco India Private Limited
Construction Period	2020-2021

PROJECT DESCRIPTION

Built over 100 years back during the British rule and commissioned in 1924, the water tank has a capacity of 4.6 million liters per day (MLD) provides water to several parts of the city. Over the years, the water tank which lies under a part of the Ridge, has developed cracks in the walls of its four chambers. The cracks are a few millimeters deep but are widening with the passage of time, which can result in a huge disaster if not restored in time.

SCOPE OF WORK

- Providing Design Drawing methodology for repair and maintenance of reservoir
- Steel reinforcement for RCC work
- Providing and Fixing of Non Return type packers
- Providing and Application of SILICATE PU FOAM with use of high pressure injection pump
- Application of long open lime epoxy based bonding-agent having mixed density of 1.48 Kg/litre compressive strength of 65 Mpa at 7 Days, one coat on old concrete
- Providing and applying pre-packed Polymer modified repair mortar, Pagel UI 0/U40 as per ASTM/ BS standards having comp strength of 45 Mpa, min at 28 days
- Polymer Modified Repair Mortar
- Providing and placing in position Micro-concrete as per relevant ASTM /BS/ IS having comp. strength of min. 45 Mpa at 28 days
- Making hole for shear connectors in concrete/masonry surface to any dia and depth as required at site by using driller with HY! 70, FIS360 chemical compound for inserting the reinforcement after drilling and air jet
- Providing and Laying two component Epoxy primer for preparing concrete surface before applying Elastomeric Pure Polyurea Coating
- Providing and Laying Flexible Elastomeric Pure Polyurea Coating in 2 coats to achieve 2mm DFT, with Two Component compete after Surface Preparation
- Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat
- 15 mm cement plaster on rough side of single or half brick wall of mix 1:4 complete in all leads and lifts

VALPLAST®

RETAINING WALL/ SLOPE STABILIZATION

(BY CELLULAR CONFINEMENT SYSTEM)

RESTORATION OF HELIDROME, ARUNACHAL PRADESH

Restoration of Helipad and Construction of Retaining walls with Geoweb Technique

Region	India
Type	Erection works for Restoration of Helipad
Main Contractor	Indian Army
Execution of the Work	Renesco India Private Limited
Construction Period	2017-2018

PROJECT DESCRIPTION

Through an interconnected honeycomb-like network, 3D geocells confine and stabilize soils that would otherwise be unstable under loading. Geocells are efficient and economical for retaining walls and erosion control of slopes, and storm water control in channels. This system stabilizes the upper soil layer on embankments with the 3D geoweb slope protection system to resist sliding, prevent severe erosion caused by surface runoff, and allow steeper slopes to be built, creates stable growth environment, allows root lock-up, allows vegetation and plantings and suspends vegetation over liner systems.

SCOPE OF WORK

- Construction of retaining walls using using M25 grade concrete.
- Construction of RCC culverts with MS grating for restoration of helidrome using M25 grade concrete in desired slope and gradient
- Construction of RCC drain of width 500mm and height 600mm with M25 grade concrete in desired slope and gradient
- Providing and laying UPVC pipe for restoration of helidrome
- Slope stablisation using Geoweb technique


Before work During work


During work After work

VALPLAST®

COASTAL PROTECTION

(BY GEO TUBE)

COASTAL PROTECTION, IRRIGATION DEPT, KERALA

Coastal Protection Work Using Geotubes

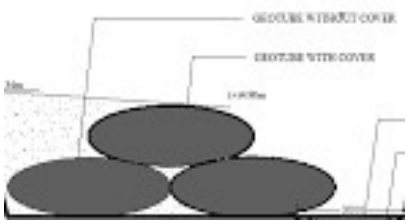
Region	Kerala (India)
Type	Coastal Protection
Client	Irrigation Deptt. Emakulam
Execution of the Work	Renesco India Private Ltd.
Construction Period	2018-2020

PROJECT DESCRIPTION

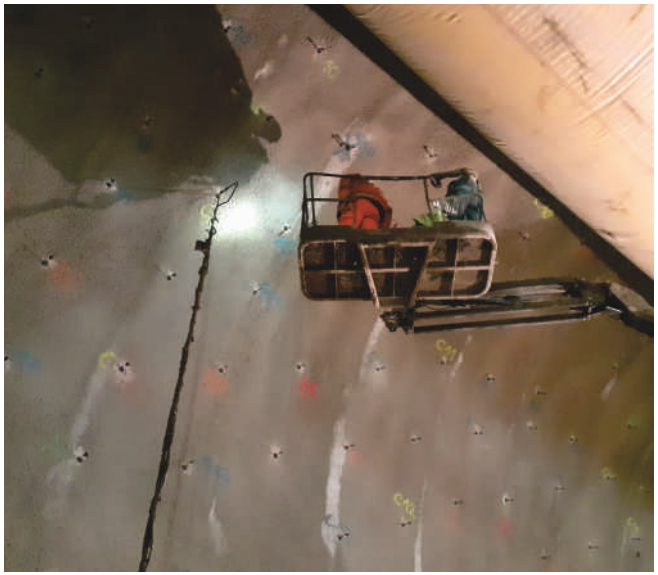
The project involves use of Polypropylene based high strength woven fabric (Geotube). The tube has high strength and permeable fabric which is able to hold back material while water flows through. Coastal stretch along Chellanam, kochi (southern part of India) was severly eroded during 2018 monsoon flood. In order to reduce the coastal erosion, sand fillled geotube work started. Geotubes are large tubes filled with sand slurry mix. The mix usually comes from dredged sand from the nearby sea area

SCOPE OF WORK

- Demolishing and rearranging the existing damaged sea wall and dumping in position (to form as 1:3 slope, not to be packed) with Granite stones 300kg to 500kg
- Supply of Geo textile tube of length 25 m, circumference of 15.70 m to provide an inflated height of 2.5 m or above after filling using dredged sea sand - fill or slurry.
- Providing woven Geo textile layer to act as scour apron beneath the bottom layer Geo tubes.
- Installation of Geotubes - Installation of 3 Nos of Geotubes, 2 Nos at bottom and one at top of length 25m at site Hydraulic filling of Geotextile tubes using excavated sand with the help of dredged pump.



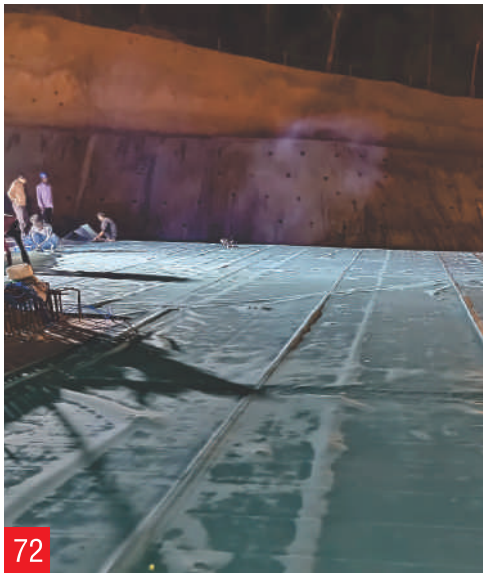
SITE IMPRESSIONS – INJECTION GROUTING



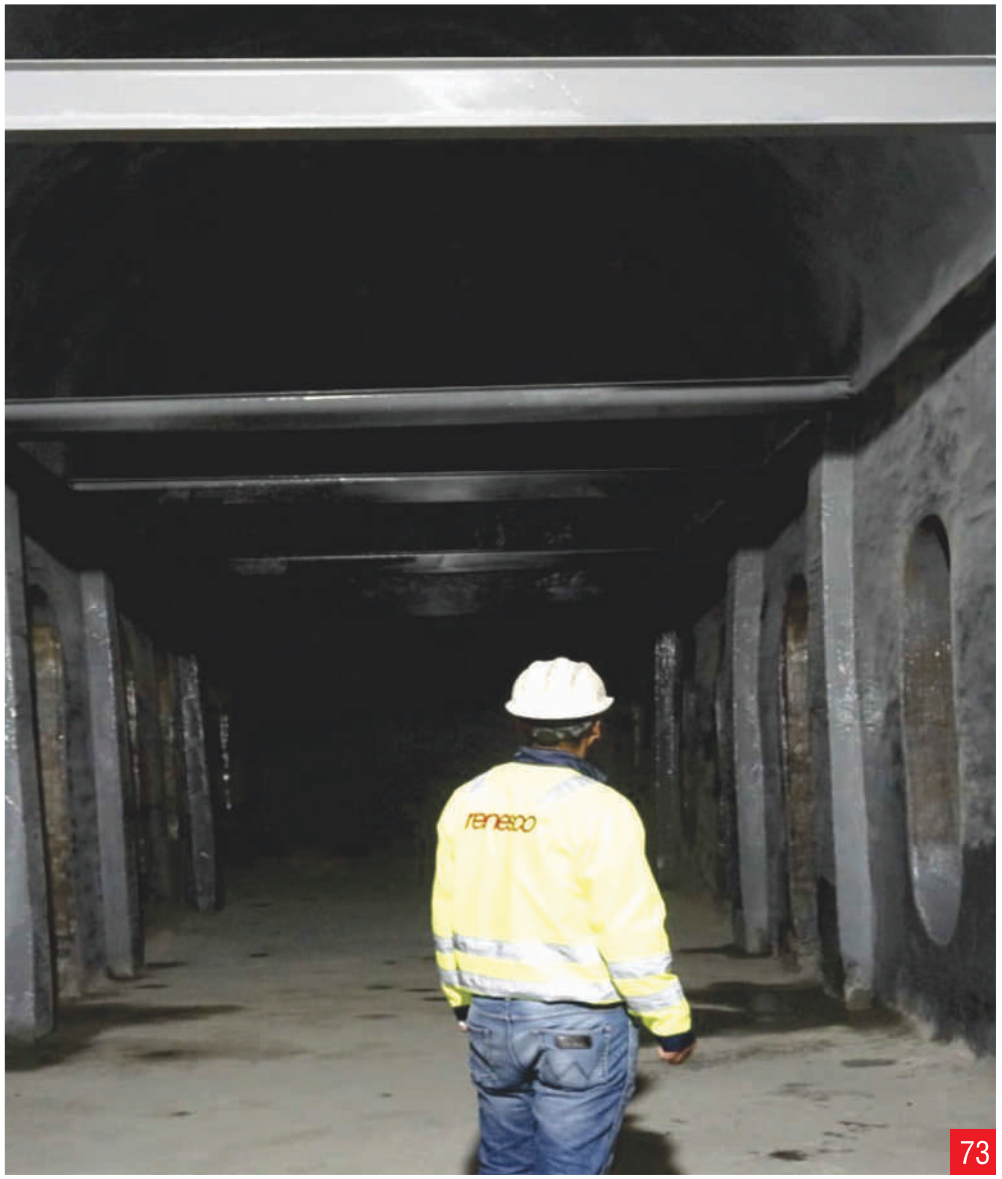
SITE IMPRESSIONS – INJECTION GROUTING

SITE IMPRESSIONS – TUNNEL WATERPROOFING

SITE IMPRESSIONS – UG BUILDING WATERPROOFING



SITE IMPRESSIONS – RETROFITTING & WATERPROOFING OF WATER TANK



SITE IMPRESSIONS – CORE DRILLING

SITE IMPRESSIONS – CELLULAR CONFINEMENT TECHNOLOGY

SITE IMPRESSIONS – COASTAL PROTECTION

SITE IMPRESSIONS – PRECAST

VALPLAST®

WE DO CHALLENGING JOBS

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