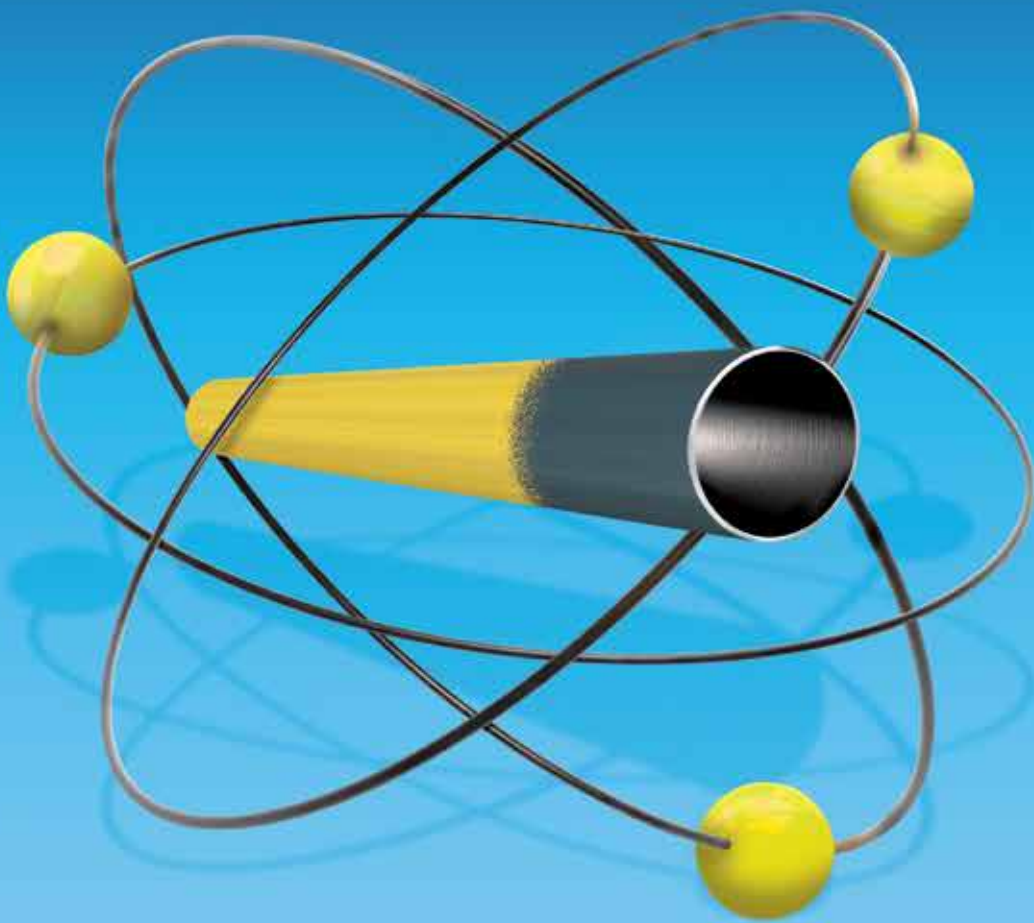




JOTUN

A double take on protection

Dual-layer FBE Coatings



Jotapipe | DL

Pipelines protected

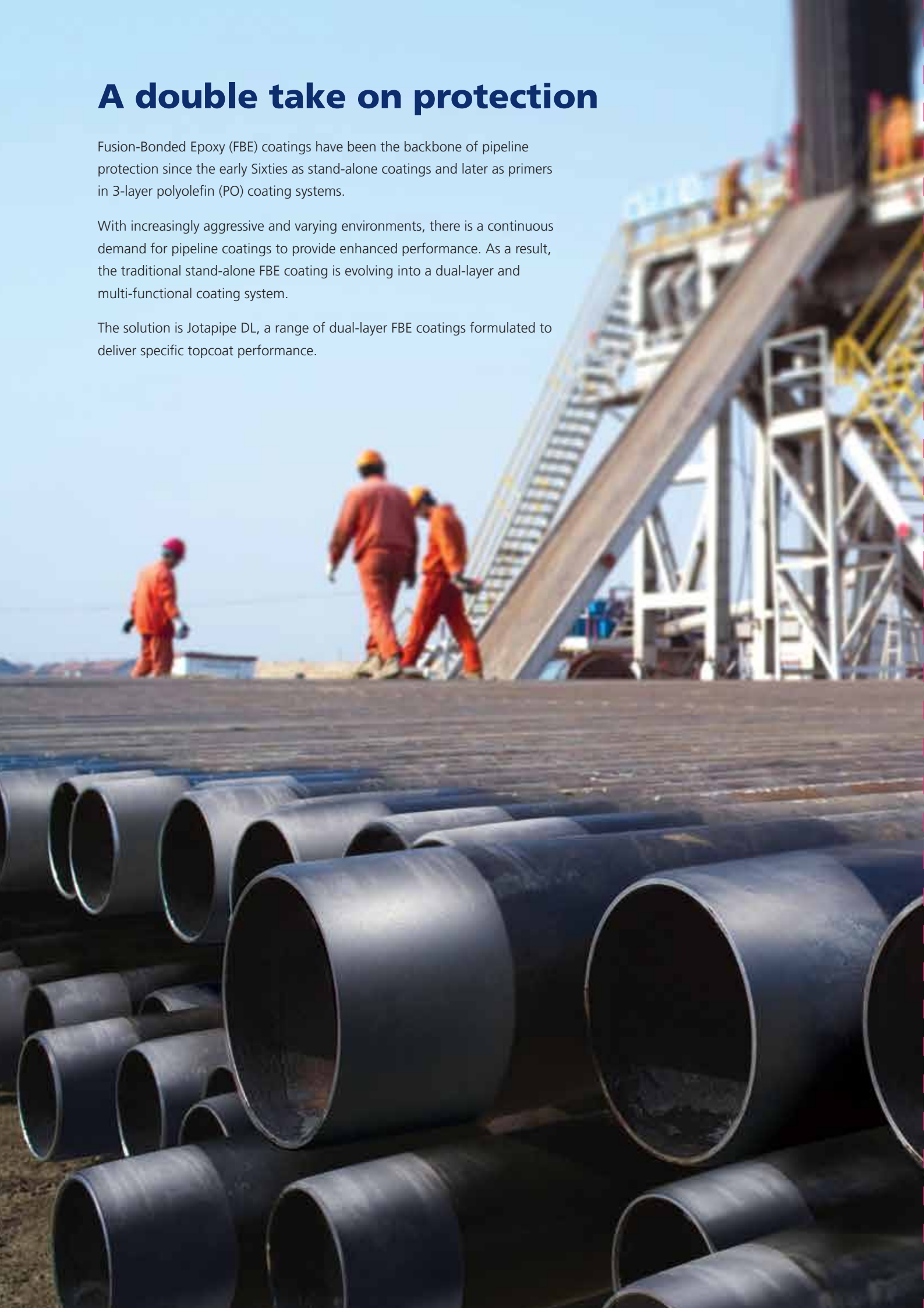
Powder Coatings

A double take on protection

Fusion-Bonded Epoxy (FBE) coatings have been the backbone of pipeline protection since the early Sixties as stand-alone coatings and later as primers in 3-layer polyolefin (PO) coating systems.

With increasingly aggressive and varying environments, there is a continuous demand for pipeline coatings to provide enhanced performance. As a result, the traditional stand-alone FBE coating is evolving into a dual-layer and multi-functional coating system.

The solution is Jotapipe DL, a range of dual-layer FBE coatings formulated to deliver specific topcoat performance.





Key benefits

Reduced pipe damage

Thanks to its two FBE layers, Jotapipe DL* produces a tougher finish than stand-alone FBE coatings. Your pipeline systems have greater protection from external damage.

Industry compliance

Jotapipe DL meets the key FBE specifications, ensuring full compliance with industry standards.

Minimal plant modification

Very little modification is required to apply Jotapipe DL. This minimises additional costs and time delays.

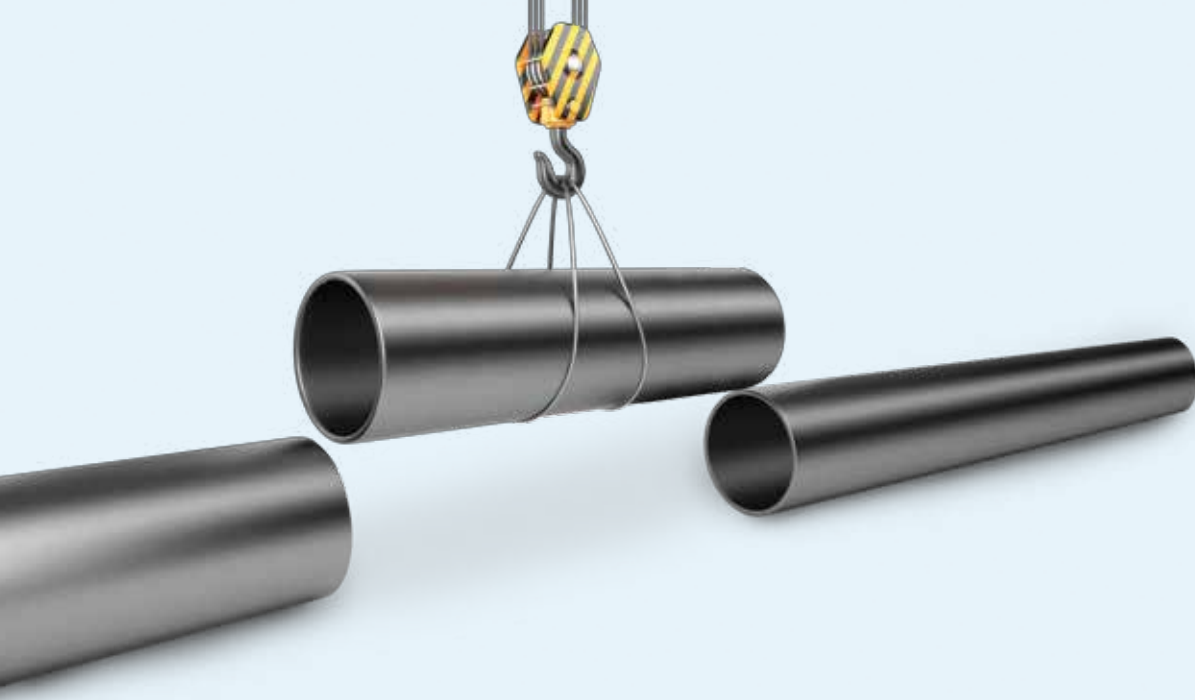
Proven success stories

For over 12 years, the Jotapipe DL range has successfully protected major pipeline systems all over the world.

Other benefits include:

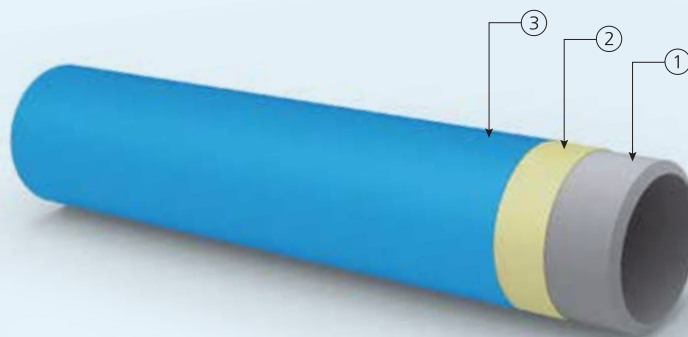
- Operating temperature performance up to 100°C (212°F)
- Ease of application
- Verifiable quality assurance/quality control

* Jotapipe DL 3002



How it works

Jotun dual-layer FBE systems comprise an anti-corrosion primary coating, over which a topcoat of Jotapipe DL is immediately applied. It is the topcoat that delivers the additional features that pipeline owners now require resulting in overall enhanced system performance.



① Grit-blasted steel

② Jotapipe FBE coating

③ **Jotapipe** | DL

Jotapipe | DL 3001

At times, you may require extra grip, especially when constructing subsea pipelines. Jotapipe DL 3001 is a rough coat designed to provide a textured surface. The anti-slip nature of the rough coat considerably improves the adhesion of the concrete weight coat to the anti-corrosion primary coating.

Jotapipe | DL 3002

When a pipeline trench is backfilled, the FBE coating can be exposed to countless impacts from falling stones and rocks that can damage the anti-corrosion coating. Testing to the latest industry standards has shown that when you use Jotapipe DL 3002, impact damage to the anti-corrosion coating is significantly reduced.

The abrasion and gouge resistance of Jotapipe DL 3002 provides an exterior shield that protects the anti-corrosion base layer of FBE from damage also caused by directional drilling and dragging of pipes in the field or on the right of way.

Jotapipe | DL 3003

Pipeline project delays and overstocking can lead to FBE-coated pipes being left in coating yards or near pipe laying sites for extended periods of time. Weathering can impact the effectiveness of FBE coatings. In particular, solar radiation causes degradation of the epoxy binder surface, causing the FBE to 'chalk'. This process can result in a reduction of FBE coating thickness by up to 40 µm per year. Jotun Powder Coatings has used its innovation and experience to develop Jotapipe DL 3003, which provides exceptional weathering resistance. This protection maintains and extends the life of the primary anti-corrosion FBE layer, allowing pipes to be used after prolonged periods of storage.

Jotapipe DL technology is backed by over 40 years of architectural coating experience and exposure to varying and harsh environments. When compared to standard FBE coatings after weathering, the performance of Jotapipe DL 3003 is impressive.



An eco-friendly solution

Every time you use Jotun products, you can rest assured that you are working towards a greener, more sustainable future. Being environmentally friendly, our powder coatings do not contain solvents, so no Volatile Organic Compounds (VOCs) are released into the air. Oversprayed powder can be recycled with minimal wastage, and disposal is easy and safe. In addition, all Jotun Powder Coatings' products are lead-free.

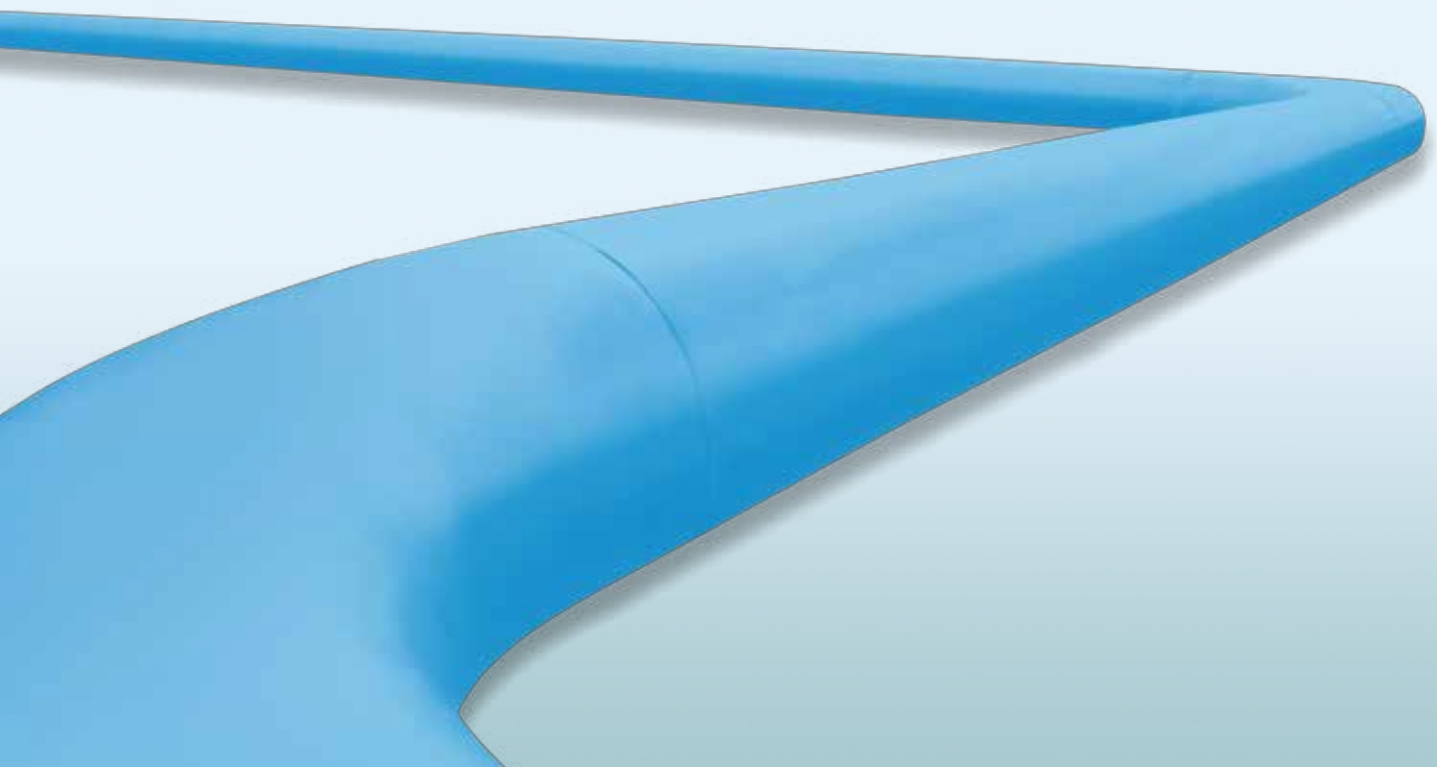
About Jotun

Jotun is one of the world's leading manufacturers of decorative paints, marine, protective and powder coatings. The group has 74 companies and 39 production facilities on all continents. Jotun products are available in 90 countries through own subsidiaries, joint ventures, agents, branch offices and distributors. At Jotun Powder Coatings, we are committed to develop, produce and deliver solutions that create value through consistency in application, enhanced appearance and superior durability.

A partner you can trust

Jotun Powder Coatings is here to partner with you and meet your specific project needs. We deliver more than just products - we bring you our unique Pipeline Concept. With the entire process in mind, we provide a comprehensive portfolio of coating solutions for the most demanding global environments. This is supported by our strong supply chain and a team that is ready to help you with any technical support you require 24/7, 365 days a year.

With an unbeatable range of products, a dedicated point of contact, and training and education facilities, the Pipeline Concept from Jotun Powder Coatings is the only pipe coating solution you need.



Stay in touch

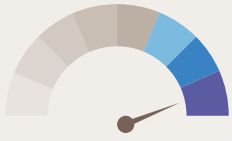
Please contact us for more information on our product range. We offer company training on our product portfolio and powder coating technology through a number of powder schools that we run for selective customers. Feel free to contact your local sales representative for more information.



Scan QR code to find out more or visit [jotun.com](https://www.jotun.com)



Jotun Protects Property



Outstanding track record

Working with someone you can trust is essential in the industry and we back that up with a proven track record of over 40 years protecting more than 130,000 km of pipelines.

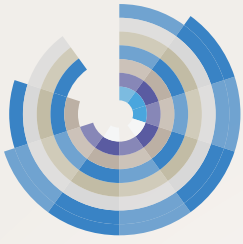
The Jotapipe DL range is used by major oil and gas companies including ExxonMobil, Chevron, NGC, IOCL and Esso.



Typical projects featuring *Jotapipe* | DL

Project Name	Country	Jotun Product	Length	Dia
Gorgon Upstream Pipeline	Australia	Jotapipe DL 3001	50 km	6-34 in
QGII Offshore Pipeline	Qatar	Jotapipe DL 3001	180 km	16-38 in
PNG LNG Offshore Pipeline	Papua New Guinea	Jotapipe DL 3001	414 km	36 in
Ras Laffan Offshore Pipeline	Qatar	Jotapipe DL 3001	97 km	32 in
Salaya Mathura Pipeline	India	Jotapipe DL 3002	900 km	18-24 in
Amod Hazira Pipeline	India	Jotapipe DL 3002	50 km	12 in
Adriatic LNG Pipeline	Italy	Jotapipe DL 3002	6 km	32 in
Cross Island Pipeline (Phases 1-3)	Trinidad & Tobago	Jotapipe DL 3002	76 km	56 in
Newmont Mining Fuel Line	Indonesia	Jotaipe DL 3002/3	25 km	6 in

Please visit our website www.jotun.com for more information.



Product Portfolio

The Jotapipe DL range includes:

Product Name	Main Feature	Coating Description
Jotapipe DL 3001	Anti-slip	Rough coat designed to improve adhesion between Jotun FBE coatings and concrete weight coat.
Jotapipe DL 3002	Abrasion resistance	Abrasion-Resistant Overcoat (ARO) designed to protect Jotun FBE coatings from mechanical damage during handling, backfilling, directional drilling and general operation.
Jotapipe DL 3003	UV resistance	Topcoat designed to protect Jotun FBE coatings against degradation from solar radiation and exposure to harsh weathering environments.