

DARE TO CARE!

**system
selection
guide**

**Oil & Gas
Corrosion Prevention**



STOPAQ[®]

Self-healing corrosion prevention & sealant technology

SEALFORLIFE

STOPAQ

The name STOPAQ derives from “Stop Aqua”, or stop water. It reflects one of the tasks that was originally given to Frans Nooren to seal the leaks in the quay walls at the port of Rotterdam. To address this challenge, Frans built a pontoon at the base of the dam wall from which a compressor could operate. Divers were lifted into the water in a moveable elevator located between the pontoon and the dam wall from which applicators worked to seal the leaks in the quay walls. Using this approach, sand could no longer slip through the walls into the sea. This innovative solution worked without having to drain the water from the dam and thus a new approach of sealants and coatings was born.

SFL INDUSTRIES

pipelines



DARE TO CARE!

The Seal For Life story begins with the latest family member - STOPAQ. The “Seal For Life” theme was first developed around STOPAQ’s sustainable products, its sustainable production methods, and the sustainable nature of their application. This theme was quickly recognized and appreciated in the market and grew to become more than simply a slogan – it became a statement of intent and our corporate mission.

Covalence, Powercrete, Polyken and Anodefex are well respected names in the world of pipelines and corrosion prevention. They are fantastic brands built by motivated professionals.

Dare to Care

When STOPAQ joined the Berry organization, the Berry Board recognized the Seal For Life theme as a valuable and visionary property, and immediately chose it as the ‘family statement’. Then the Board went one step further and the previous family name - the Berry Corrosion Prevention Group - was changed to Seal For Life Industries.

We have the products and the know-how. And now we have the vision: one world, one mission: **Seal For Life.**



services

refinery

casings

pipeline coatings

splash zone/subsea

offshore

condensating lines

factory applied coatings

infraspecials

insulation

services

30 years guarantee

At STOPAQ we understand how fool-proof, safe and secure our products are. We guarantee 100% protection against external corrosion for everything we seal against corrosion.

We seal for life. To emphasize this belief in our product, we give a product application guarantee certificate for every project we undertake, based on the ISO 12944.



STOPAQ®

services



STOPAQ is a manufacturer and a renowned provider of turnkey services. Seal For Life Technology & Services B.V. is available to apply STOPAQ products directly onto your projects with or without your own technicians. Alternatively, STOPAQ is available to train your technicians in the use and application of STOPAQ products.

STOPAQ offers services in the following areas:

- Splash zone Pile Systems & Subsea Pipeline Repair
- Casing Filler delivery by tank truck (end sealing)
- Offshore J-tube Filling
- Onshore end sealing casings
- Application training
- Offshore Joint Coating
- Mobile Pipe Coating
- Coating removal
- Outdoor coating testing
- Laboratory testing
- Off-site & on-site engineering assistance
- Waterproofing
- Sweating pipeline applications
- Pipeline leak Repair



refinery

STOPAQ Refinery Systems offer total protection against chemical influences.

Keywords: durable, safe and sustainable.

The systems were especially developed for the high safety standards of refineries – from risers to tank bottoms, from tank roofs to leak repair.

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STOPAQ[®]

refinery



Risers

- STOPAQ Wrappingband + Outerwrap + Outerglass XT (or Polyester with Gelcoat)

Flanges – Gasket Protection above ground

- STOPAQ 4200 Filler (apply masking tape at flange face)
- STOPAQ Wrappingband
- STOPAQ Flangebelt

Tank bottoms (chime area)

- STOPAQ 4200 Filler + EZ STOPAQ Paste CZ (depending on chime width)
- STOPAQ Wrappingband CZ at horizontal + STOPAQ Wrappingband EZ for the vertical part overlapping Wrappingband CZ

Tank roofs

- STOPAQ Wrappingband EZR (1.4 mm) + suitable finishing coating, like STOPAQ Topcoat

Under Insulation & Fireproofing

- STOPAQ Wrappingband, productline depending on temperature and insulation material

Leak repair (low pressure max. 3 bar)

- STOPAQ Strip clamp
- STOPAQ Wrappingband and STOPAQ Paste
- STOPAQ Outerwrap
- STOPAQ Outerglass Shield HT

Pipe Reinforcement

- STOPAQ Steel putty
- STOPAQ Outerglass Shield HT (wall loss, max 40%, depending on pipeline diameter)
- STOPAQ Wrappingband
- STOPAQ Outerwrap or STOPAQ Outerglass Shield XT

Horizontal Drilling – FAST system

- STOPAQ Basecoat (0.85 mm) + STOPAQ GRE (Glass Fiber Reinforced Epoxy of 2 mm or STOPAQ Outerglass Shield HT)

HDD Joints

- STOPAQ Wrappingband + STOPAQ Outerwrap + STOPAQ Outerglass Shield HT

STOPAQ®

refinery

casings

Casings are steel, plastic or concrete duct pipes in which cables or transport pipes are placed. They are found in buildings, such as PVC tubes containing electricity cables. Casings are also used for transport pipes at railroad and waterway crossings. The casing protects the transport pipe against external forces and the environment against any unwanted effects. If the transport pipe fractures, the liquid or gas streams off via the casing, thereby translocating the consequences away from critical areas and avoiding effects such as crater forming. A transport pipe due for replacement, for example, can be pressed out by inserting the new piece into the casing: new in, old out. A disadvantage is that plastic or coated casings cause shielding to cathodic protection, which exposes the transport pipe to corrosion. In general, it is difficult to establish the level of corrosion of the pipe in the casing.

Casings therefore call for a reliable and durable corrosion preventing solution: STOPAQ Casing Filler. It completely fills up the space between the inner wall of the casing and the outer wall of the transport pipe with a visco-elastic compound. The filler is supplied and injected from heated tankers or delivered in containers/drums. In hot liquid form it fills up the entire space between the walls, and once hardened it becomes a visco-elastic mass, leaving space for the pipe to expand and shrink in response to pressure and temperature fluctuations. The filler protects the steel casing and the transport pipe against corrosion for a long period of time. Research has shown that this system remains intact for 35 to 40 years. Water and oxygen are no longer able to reach the steel walls and corrode them.

STOPAQ®

casings

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Turn key casing solution

- Prevents entry of water, oxygen and other foreign substances into casings
- Prevents galvanic and atmospheric corrosion within casings
- Has excellent “wetting” and adhesion characteristics
- Protects casings from deterioration
- Reduces cathodic protection current
- Totally inert
- Delivered and installed by heated tank trucks or containers
- Material installed with calibrated volume meter
- Experienced Services B.V. staff to perform work
- Equipment available for jobs overseas
- Excellent track record with major European Gas Companies from Poland & France
- Specified by Gasunie N.V. & National grid U.K. tested

STOPAQ®

casings

pipeline coatings

STOPAQ is the answer for guaranteed corrosion-free gas, oil and water pipelines, underground flanges and valves, and pipe saddles.

STOPAQ is used for external corrosion prevention of pipelines, either shop-applied or on the site for a vast amount of applications. The mobilization and demobilization costs are extremely low compared to conventional systems. For example: surface preparation according to ST 2 (or ST3) is sufficient; blasting to SA 2.5 is also possible but is not required for STOPAQ materials. The systems are simple and easy to apply.

The system does not require special primers or adhesives to fix the coating mechanically. The system does not require curing time, so backfilling can be carried immediately.

STOPAQ[®]

pipeline coatings

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Casings by STOPAQ Oil & Gas Services B.V.

End sealing

- STOPAQ 4100 Putty
- STOPAQ EPDM sleeve, in combination with Stopaq Casing Filler

Steel Pipe and Wall Penetrations at compressor stations

- STOPAQ 4100 Putty (first infill)
- STOPAQ 2100 Aquastop (second infill)
- STOPAQ Mortar (final part)

Pipelines Rehabilitation including pipe fittings

- STOPAQ Wrappingband (CZ, CZH, CZHT) + STOPAQ Outerwrap (PVC, PE, HSPE, HTPP)

Pipe Saddles

- STOPAQ Wrappingband CZH
- STOPAQ Polyester, STOPAQ Outerglass Shield XT or other tough saddles

Field joints of Transmission Pipelines, depending on temperatures

1. Low Stress

- STOPAQ Wrappingband CZH + STOPAQ Outerwrap PVC, PE, HSPE

2. Low to Moderate Soil Stress

- STOPAQ Wrappingband CZH (CZHT) (2 wraps of 300 mm width with 50 mm overlap) + STOPAQ HI Shield (HT)

3. Moderate to higher soil stress

- STOPAQ CZH (600 mm) + STOPAQ HI Shield HSR* (600 mm)

4. High soil stress for small piping till 8 inch.

- STOPAQ Wrappingband CZH + STOPAQ Outerglass Shield XT (3 layers with 50% overlap)

5. High soil stress (iso489 tested & approved)

- STOPAQ Basecoat + STOPAQ GRE (2 mm) or STOPAQ Outerglass Shield (2 mm) in combination with FAST GRE

Risers

- STOPAQ Wrappingband CZH
- STOPAQ Outerwrap PVC, PE, HSPE or HTPP
- STOPAQ Outerglass Shield XT or STOPAQ Polyester + STOPAQ Gelcoat

Underground Flanges, Valves & Manhole Covers

- STOPAQ Paste
- STOPAQ Geotextile
- STOPAQ Wrappingband CZ/CZH/CZHT/EZ
- STOPAQ EZ Topcoat/Polyurea
- STOPAQ Outerwrap PVC, PE, HSPE or HTPP

Above ground Flanges & Valves

- STOPAQ Paste
- STOPAQ 4200 Filler
- STOPAQ Wrappingband CZ/CZH/CZHT/EZ
- STOPAQ EZ Topcoat/Polyurea
- STOPAQ Outerwrap PVC, PE, HSPE or HTPP or suitable paint systems

Under Insulation or Fireproofing

- STOPAQ Wrappingband CZH + insulation according spec + STOPAQ Aluwrap (Seal)

Horizontal Drilling – FAST system

- STOPAQ Basecoat (0.85 mm) + STOPAQ GRE (Glass Fiber Reinforced Epoxy of 2 mm)

* HSR = high shear resistance

STOPAQ[®]
pipeline coatings



splash zone / subsea

In tidal zones, STOPAQ Splash Zone Coating System protects against the corroding influences of (salty) water, oxygen and bacteria. The system is developed for usage below and above low tide. The Subsea Systems also protects submerged objects and can be easily applied by divers or ROVs.

STOPAQ®

splash zone /
subsea

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splash zone/
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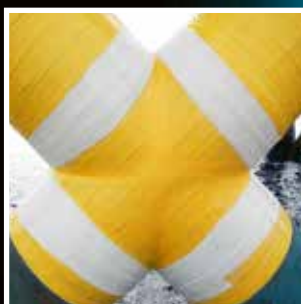
offshore

condensating
lines

factory applied
coatings

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Splash Zone

Below low tide

- STOPAQ Wrappingband SZ (100 mm x 6 m rolls, applied with 50% overlap)
- STOPAQ Intermediate Wrap
- STOPAQ Outerglass Shield XT24 (8" x 60' / 12" x 60' and 8" x 30' with 67% overlap)

Above low tide

- STOPAQ Wrappingband CZH
- STOPAQ Intermediate Wrap
- STOPAQ Outerglass Shield XT/XT24 (8" x 60' with 67% overlap)

Subsea (STOPAQ Oil & Gas Services BV)

Below water

- In Caisson
- STOPAQ Wrappingband CZH
- STOPAQ HI Shield or STOPAQ Outerwrap PVC

By divers or ROV

- STOPAQ Wrappingband SZ
- STOPAQ Subsea Intermediate Wrap
- STOPAQ Outerglass Shield XT24 (8" x 60')

STOPAQ[®]

splash zone /
subsea



offshore |

Pipelines and platforms need to be safe constructions – for people and for the environment.

STOPAQ Offshore can seal risers, ballast tanks, J-tubes and flanges for life. STOPAQ applications can be found on many important offshore installations worldwide and on many offshore pipeline joints. STOPAQ offers fully integrated solutions, including services on board of lay barge vessels. STOPAQ pipeline FJC systems offer simple, safe and fast-turnaround jobs, with guaranteed performance. Mechanical protection is ensured by using tapes, shrinkable sleeves, rock shields or PU infill.



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Field joints (lay barge vessels)

- Concrete Weight Coated, PE, PP, Neoprene Coated Pipelines and bitumen enamel
 1. STOPAQ FJS Wrappingband CZH (600 mm)
 2. STOPAQ Injection Filler (150 °C max) for insulation

- PE, PP and Neoprene Pipelines
 1. STOPAQ Wrappingband CZH/ CZHT
 2. STOPAQ High Impact Shield (HIS HT + HTPP for higher operating temperatures)

Risers

- STOPAQ Wrappingband CZH/CZHT
- STOPAQ Outerwrap PE/HTPP
- STOPAQ Outerglass Shield HT

Flanges – Gasket Protection

- STOPAQ 4200 Filler
- STOPAQ Wrappingband EZ
- STOPAQ Flangebelt
- STOPAQ EZ Topcoat/Polyurea

J-tubes (via Oil & Gas Services B.V.)

- STOPAQ J-Tube Filler (injection turn-key)

Ballast tanks (knees, coves, corners)

- STOPAQ Wrappingband marine, side by side applications on request

Ballast tank piping

- STOPAQ Wrappingband CZH
- STOPAQ Outerglass Shield XT (2 layers with 50% overlap)

Christmas Trees

- STOPAQ Wrappingband CZH / CZHT
- STOPAQ Outerwrap
- STOPAQ Outerglass Shield XT (2 layers with 50% overlap)

STOPAQ®

offshore



offshore II

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STOPAQ®
offshore

- services
- refinery
- casings
- pipeline coatings
- splash zone/ subsea
- offshore
- condensating lines
- factory applied coatings
- infraspecials
- insulation



Under Insulation & Over Insulation

- STOPAQ Wrappingband line of products

Condensating Lines

- STOPAQ Wrappingband CL
- STOPAQ Intermediate Wrap PVC
- STOPAQ Outerwrap PVC/ STOPAQ Outerglass Shield

Subsea Repair

- STOPAQ Wrappingband SSL + STOPAQ Intermediate Wrap PVC + STOPAQ Outerglass Shield XT 24

STOPAQ®

offshore

condensating lines

The STOPAQ Wrappingband CL is a corrosion prevention wrap adhering extremely well to wet surfaces such as bare – or coated – steel pipelines suffering from condensing water.

It can be used for new or coating repair of sweating pipelines, and it is used for the protection against external corrosion of steel pipeline situated in environments with high relative humidity.

STOPAQ®

condensating
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Condensating lines

- STOPAQ Wrappingband CL
- STOPAQ Outerwrap

Or

- STOPAQ Wrappingband CL
- STOPAQ Intermediate Wrap PVC
- STOPAQ Outerglass Shield XT/XT 24

STOPAQ®

condensating
lines

factory applied coatings

3mm Factory Applied Line Pipe Coatings are used for horizontal drilling, transmission pipelines and distribution pipelines.

Worldwide, millions of square meters have been sealed by STOPAQ. Now, entire pipes can be coated in the factory or on site in especially developed mobile coating plants. STOPAQ cooperates exclusively with excellent renowned preferred suppliers of machinery, like Ehri B.V., Selmers B.V. and Bouwmeester B.V. to offer various solutions.

STOPAQ®

factory applied coating

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insulation



Usage

Horizontal Drilling, Transmission Pipelines, Distribution pipelines.

- STOPAQ Basecoat GRE + Powercrete FAST GRE
- STOPAQ FAST Basecoat + STOPAQ/Shrinktape (heat shrinkable polymeric tape)
- STOPAQ FAST Basecoat + extruded PE/PP

Systems can be applied in the factory or in mobile coating plants on site. Systems are applied in cooperation with renowned preferred suppliers of coating piping such as Ehri or in our own STOPAQ Coating plants.

STOPAQ Basecoat can be supplied in containers for specific-like application with 3LPE/3LPP coating plants. Special spray-like units can be provided via our services team.

STOPAQ®

factory applied
coating



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factory applied coatings

infraspécials

insulation

infraspécials

With Infraspécials STOPAQ offers corrosion prevention for any infrastructural object.

STOPAQ offers solutions for protection of an increasing amount of different infrastructural applications such as; data & power cables, cable joints, storage tanks and city pylons. By using STOPAQ solutions, they are guaranteed to be sealed for life.



STOPAQ®
infraspécials



City Pylons

- STOPAQ Wrappingband CZH
- STOPAQ Outerwrap
- STOPAQ Outerglass Shield XT or STOPAQ Polyester

Bolt Protection

- STOPAQ Wrappingband EZ and/or STOPAQ Paste CZH + STOPAQ EZ Topcoat/Polyurea

Storage tanks

- STOPAQ Wrappingband CZH
- STOPAQ Outerwrap
- STOPAQ Polyester/ OGS

Petrol station manhole covers

- STOPAQ 4100 Putty
- STOPAQ Geotextile

Petrol station piping

- STOPAQ Wrappingband CZ
- STOPAQ Outerwrap

STOPAQ®

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insulation

Thermal insulation is used on pipes to keep the product transported at the temperature required.

Corrosion under insulation (CUI) poses a serious threat to the structural integrity of the pipe.

General corrosion is an electro chemical process in which the metal reacts with oxygen and water, for example rusting of iron. A salty environment, high temperatures or the presence of chemicals accelerate and intensify the corrosion processes.

Corrosion causes a huge amount of economic damage: about four per cent of GNP (Gross National Product). In 2001 the direct costs caused by corrosion in the United States were estimated at 276 billion US Dollars a year. It was estimated that indirect costs were of the same magnitude. Parts damaged by corrosion have to be treated or replaced. For transport pipes, for example, the costs can quickly run up to several hundred thousand Euro. Not to mention the huge risks corrosion involves. A pressurized pipe can succumb at a corroded weak point or sheet piling can collapse. The solution to corrosion consists of removing one or more of the required components: water, oxygen or the creation of the electrochemical reaction. Traditional coatings for metals, such as bitumen, polyethylene (PE), polypropylene (PP) and epoxy powder coating (FBE) are unable to prevent water, acids, chloride and/or oxygen from getting to the metal. Cathodic protection is used to halt the electrochemical reaction. In this system a low electrical current prevents the metal from ionizing. This protection method requires energy, and it must be monitored constantly. CUI is difficult to detect. It often does not become apparent until it has reached a critical stage. Inspection and repair is costly because the insulation layer has to be removed in most cases. An ExxonMobil study from 2003 revealed that 40 to 60 per cent of the maintenance costs for pipelines can be attributed to corrosion. Protection against corrosion therefore calls for a permanent solution: STOPAQ. STOPAQ contains no chloride, acids or salts. STOPAQ prevents the penetration of water and oxygen and – accordingly, if properly applied – corrosion.

STOPAQ®

insulation





Insulation

- STOPAQ Wrappingband + insulation according to spec + STOPAQ Wrappingband

STOPAQ®

insulation

A vertical banner with a teal background on the right and a blurred image of a person's face on the left. The text "product leaflets" is written vertically in white on the teal background.

product leaflets



Sealing compound

Features

- Adheres to wet and dry surfaces
- Fast & easy to apply
- Impermeable for water and gas
- Long-term protection, does not age

- Wall inlets below groundwater level
- Seals running water leaks
- Wall penetrations inside buildings
- Multi-pipe & cable inlets



STOPAQ® 2100 AQUASTOP

STOPAQ®

sealants

STOPAQ® 2100 Aquastop

Compound suited for sealing wall, pipe or cable inlets and hollow spaces against gases, moisture, standing water and running groundwater leaks.



Features

- Minor surface preparation required
- Adheres on wet and dry surfaces
- Fast and easy to apply
- Does not harden and has no pot-life
- Resists up to 0.3 bar of ground water pressure
- Impermeable to water and gas
- Non Toxic - applicator- and environment friendly
- Does not age

Benefits

- The sealing remains flexible permanently
- Does not demand special tools for application
- No material waste – paste is re-usable
- Immediate sealing - no curing time
- Provides permanent and optimal safety
- No fumes, no chemical reactions
- Adjusts to movements of pipes & cables
- Allows adding and removing of conduits at any time

For more info, check the product data sheet at www.STOPAQ.com

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Mouldable Putty for underground corrosion prevention of manhole covers

Features

- Minor surface preparation required
- Excellent permanent adhesion
- Easy to apply and shape
- Impervious to water and oxygen
- Can be re-used

Underground usage only



STOPAQ®

corrosion
prevention

STOPAQ® 4100 PUTTY

STOPAQ® 4100 Putty

Non-crosslinked corrosion prevention moldable putty for underground pipeline flanges, valves, fittings and casings



Features

- Adheres on various types of dry substrates.
- Easy to shape and mould
- Fills the finest pores of the substrate
- Minor surface preparation required – wire brushing is sufficient, sand blasting is not required
- No primer required

Benefits

- Harmless for environment and workers
- Fast and easy to apply
- Cost- and time saving surface preparation
- Can be moulded onto all irregular shaped objects
- No osmosis possible
- CP function is not affected
- Can be re-used - no waste

Excellent corrosion resistance - must be mechanically protected by Wrappingband CZ and/or Geotextile and suitable tapes.

For more info, check the product data sheet at www.STOPAQ.com

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Corrosion-prevention filler for above-ground usage, flanges, tankbottoms, bolts and threats

Features

- Easy to seal uneven, non cleaned or hard-to-access surfaces
- Excellent flow into finest gaps and voids
- Excellent seal against corrosion
- Easy to use
- Long-term protection

Onshore & Offshore

Rehabilitation and new-built pipe fittings

Underground and above-ground application



STOPAQ®

corrosion
prevention

STOPAQ® 4200 FILLER

STOPAQ® 4200 Filler

The 4200 must be mechanically protected by Wrappingband CZH + suitable mechanical protection



Features

- Adheres on all dry substrates
- Easy to apply by injection tool (available separately)
- Surface tolerant
- Permanently fills the finest pores
- Resistant to temperatures down to -45°C
- Non-toxic
- Seals and stops active corrosion
- Blocks H_2S gas
- Compatible with various types of existing coatings

Benefits

- Harmless to environment and workers
- Permanent sealing of narrow spaces
- No special surface preparation and primers needed
- Cost- and time saving
- Unlimited shelf life and pot life
- Very long service life

(max. temperature 100°C)

For more info, check the product data sheet at
www.STOPAQ.com

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Visco-elastic coating

Features

- Excellent immediate and permanent adhesion to steel and other surfaces like PE, PP, FBE
- Impervious to water and oxygen
- 30 years guarantee on corrosion prevention
- Operational temperature range -45°C up to 70°C

Onshore & Offshore

Rehabilitation and new-built pipelines

Underground and above-ground application



STOPAQ®

corrosion
prevention

STOPAQ® Wrappingband CZH

Self-healing Monolithic Polymer Wrap

Coating for pipeline field joints and rehabilitation



Features

- Controlled cold flow providing permanent in flow into the finest pores of the substrate
- Resistance to low temperatures without getting brittle
- Conforms to irregular shapes
- Low surface tension; adheres on many types of dry substrates at a molecular level
- Surface tolerant: no blasting techniques required, wire brushing is sufficient (ISO 8501-1: St 2)
- Constant film thickness
- Adhesion based on vanderWaals forces
- Inert to ageing and weathering
- Resistant to many chemicals like water, salts, acids, alkalis, polar solvents, etc. For additional information, please consult STOPAQ B.V.

Benefits

- Environmentally friendly, no health and safety hazards to humans
- Fast and easy to apply
- Easy to control application
- Can be moulded onto various types of irregular shaped objects
- No osmosis or underfilm migration of moisture
- No cathodic disbondment
- Cathodic Protection (CP) of steel structures is not affected
- Guaranteed performance

100% corrosion prevention - can be mechanically protected by tapes, shrink sleeves, polyester and polyurethane etc.

For more info, check the product data sheet at www.STOPAQ.com

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Moldable Fully Amorphous Compound supplied in sheets

Features

- Excellent immediate and permanent adhesion to steel or other surfaces like PE, PP, FBE
- Long-term physical, chemical, thermal and mechanically stable protection
- Impervious to water and gases
- Temperature range -45°C to 70°C
(CZ Paste up to 50°C)

Onshore & Offshore

Rehabilitation and new-built pipelines

Underground and above-ground application



STOPAQ®

corrosion
prevention

STOPAQ® PASTE CZH

STOPAQ® PASTE CZH

Moldable Insulating Polymer Coating Compound for above-ground and underground pipeline flanges, valves and fittings up to 70°C operating temperatures.



Features

- Controlled cold flow providing permanent in flow into the finest pores of the substrate
- Conforms to irregular shapes
- Low surface tension; adheres on many types of dry substrates at a molecular level
- Surface tolerant: no blasting techniques required, wire brushing is sufficient (ISO 8501-1: St 2)
- Adhesion based on vanderWaals forces
- Inert to ageing and weathering
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- Cathodic Protection (CP) of steel structures is not affected
- Guaranteed performance

STOPAQ® CZH Paste should be mechanically protected by Wrappingband CZH + other protective tapes, sleeves, polyesters etc.

For more info, check the product data sheet at www.STOPAQ.com

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Mechanical Protection Tapes

Features

- Easy to apply
- Excellent impact resistance
- Provides mechanical strength to corrosion prevention solutions
- Outerwrap PVC: max. 65°C
- Outerwrap PE: max. 70°C
- Outerwrap HTPP: max. 95°C

Onshore & Offshore

Rehabilitation and new build pipelines

Underground and above-ground application



STOPAQ® OUTERWRAP

STOPAQ®

corrosion
prevention

STOPAQ® OUTERWRAP

UV-resistant flexible mechanical protection tape



Flexible tape with rubber resin adhesive

- Easy to apply by hand

High puncture and ageing resistance

- Excellent impact resistance

Good adhesion strength

- Provides extra strength to corrosion prevention layers

Suitable for max. 90°C

- Wide service range of use

Good elongation

- Can be used above-ground exposed to sunlight
(excluding PE and HTTP)

For more info, check the product data sheet at
www.STOPAQ.com

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Mechanical protection shield for underground and above-ground corrosion prevention

Features

- Excellent impact resistance
- Resistant to high temperatures up to 100°C
- Long-life protection
- Easy to apply and coat
- Excellent chemical resistance

Onshore & Offshore

Rehabilitation and new-built pipelines

Underground and aboveground application



STOPAQ®

corrosion
prevention

STOPAQ® POLYESTER

STOPAQ® POLYESTER

UV-resistant flexible mechanical protection tape



Features

- Fast and easy to apply
- High resistance to mechanical impacts and indentations
- Long-term resistance to ageing effects, even when used continuously at maximum or minimum temperature specified.
- Resistant to cold, hot, wet and chemically aggressive environments
- Wide operational temperature range
- Long pot life when sheltered from UV-light sources

Benefits

- Fast curing, relatively independent from ambient temperature
- Complete curing to be obtained by UV-A light sources and by sunlight
- Low styrene emission
- Top coats can be applied immediately after complete curing

For more info, check the product data sheet at
www.STOPAQ.com

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A mechanical protective stabilized cross-lined Polyethylene backing

Features

- Unique combination
- No cathodic disbondment
- Fast & simple to apply
- No need for preheating, blasting or a primer
- Consistent and uniform shrinking

Can be delivered in rolls and tailor-sized per joint as a total package.

Different versions are available:

- High Impact Shield up to 65°C
- High Impact Shield HT up to 80°C onshore/95°C offshore
- High Impact Shield HSR up to 80°C onshore
- High Impact Shield HTPP up to 100°C offshore



STOPAQ®

pipeline coatings

STOPAQ® HIGH IMPACT SHIELD

STOPAQ® HIGH IMPACT SHIELD

A fieldjoint polyolefin shrinkable shield

A mechanical protective stabilized cross-lined Polyethylene backing, with a special adhesive for field-joint application onshore and offshore. A special adhesive adhering to the Line pipe Coating for mechanical protection purposes only. The High Impact Shield comes in combination with the STOPAQ Wrappingband for corrosion prevention (max temperature: 70°C). The High Impact Shield comes in a standard size of 660 mm width to act as mechanical protection layer over STOPAQ Wrappingband CZH. During the shrink (gas heated) application of the shield around the STOPAQ CZH coated surface, the shield will shrink in width and length. Shrinking ratio can be 10%. The High Impact Shield can also be used for rehabilitation jobs as a wraparound sleeve at a 30 degree angle. The High Impact Shield comes in rolls of 30 m length but can also be pre-cut to the applicable diameter of the pipe.

The High Impact Shield HT comes in a standard size of 660 mm width x 30 m length to act as mechanical protection layer over STOPAQ Wrappingband CZHT.

Features:

- Extremely fast & easy to apply
- Seamless strong barrier
- Excellent combination of visco-elastic corrosion prevention with shrinkable sleeve technology
- Controlled shrink technique due to insulation properties of visco-elastic corrosion prevention layer.

Benefits:

- No pre-heating of the pipeline required
- No special induction heating equipment needed
- No extensive and expensive SA 2.5 blasting needed
- No specific roughness profiles required
- No special primers required
- No undercreep or water ingress possible
- No cathodic disbondment possible

For more info, check the product data sheet at www.STOPAQ.com

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Mechanical protection layer in rolls, based on moisture-activated urethane resin technology

Features

- Fast & easy to apply
- Excellent impact, indentation and abrasion resistance
- Suitable for Pipeline reinforcement
- Applicable underground and above-ground
- No need for machines, only water

Available in rolls, based on a moisture-activated urethane resin technology. In contact with moisture, the layer becomes rock hard. Multiple layers can be applied for increased impact, indentation and abrasion resistance.



STOPAQ®

pipeline coatings

STOPAQ® OUTERGLASS SHIELD

STOPAQ® OUTERGLASS SHIELD

Mechanical protection layer

The rolls are packed in vacuum bags and available in 3 different versions:

STOPAQ® Outerglass Shield XT

underground and above-ground in combination with CZH and Outerwrap

STOPAQ® Outerglass Shield HT

in combination with CZH or CZHT for HT applications and for pipeline repair, reinforcement and horizontal directional drilling

STOPAQ® Outerglass Shield XT24

only in combination with Wrappingband SZ



For more info, check the product data sheet at www.STOPAQ.com

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An underwater applicable
anti-corrosion substance,
available in rolls

Features

- Fast & easy to apply
- Comes in 6 meter long rolls
- Minimal surface preparation
- Immediate adhesion to any subsea substrate
- Conforms to irregular shapes
- Controlled cold flow providing permanent flow into the finest pores of the substrate

Adheres to wet and dry surfaces.



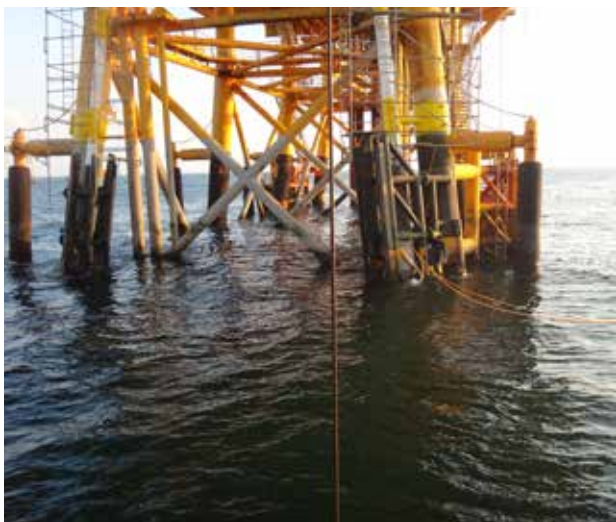
STOPAQ®

splash zone /
subsea

STOPAQ® WRAPPINGBAND SZ

STOPAQ® WRAPPINGBAND SZ

An anti-corrosion substance that can be easily applied under water and requires minimal surface preparation, power wire brushing (ST-2) is sufficient. The material must be mechanically protected by the Outerglass Shield XT24. The products together form a system and offer a simple and effective solution that can be applied underwater. And they offer a guaranteed protection of the valuable subsea assets.



For more info, check the product data sheet at www.STOPAQ.com

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Injected visco-elastic casing filler material

Features

- Turn-key installation
- Prevents water ingress and displaces water
- Environmentally friendly
- Easy to install
- Maintenance-free system

STOPAQ Casing Filler is an injected casing filler material, it is far superior to any other coating system currently in the market. This system combines the excellent corrosion prevention properties with the visco-elastic behavior of STOPAQ.



STOPAQ®

casings

STOPAQ® CASING FILLER

STOPAQ® CASING FILLER

Injected visco-elastic casing filler material

STOPAQ Casing Filler will protect the casing itself from corroding. Even in the absence of groundwater. Moisture and condensation are usually present in the atmosphere in the annulus space of the casing. This moisture, together with the available oxygen, can result in corrosion in the carrier pipe. This will not happen when protected by STOPAQ Casing Filler. The material is applied onsite by a specialized contracting firm, STOPAQ Oil & Gas B.V. The material is delivered to the site, in heated tank trucks and pumped down the casing vent as a hot liquid. As it cools down, it firms up to a pasty consistency, creating a high dielectric corrosion prevention barrier. The product does not cure! It remains flexible forever and therefore seals the objects in the most optimum way. Cathodic protection current flowing through the casing on to the carrier pipe is stopped.



For more info, check the product data sheet at www.STOPAQ.com

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