

STOPAQ® PASTE CZH

Product Information

Product description: Stopaq® Paste CZH is a low temperature, cold-applied, non-crosslinked, non-crystalline, monolithic viscous polymer based moulding paste with cold flow, self-healing, and visco-elastic properties. Stopaq® Paste CZH is a corrosion preventing, non-toxic mouldable material adhering extremely well to steel and factory applied pipeline coatings like PE, PP and FBE. Stopaq® Paste CZH is viscous at the indicated operating temperatures and, due to its liquid nature, flows into all irregularities of the substrate. The compound does not cure and is unable to build up internal stress. Stopaq® Paste CZH is fully resistant to water and has a very low gas- and water vapour permeability.

Stopaq® Paste CZH requires an additional flexible mechanical protective layer like Stopaq® Outerwrap. Optionally a rigid mechanical protective layer can be applied on top like Stopaq® Polyester or Stopaq® Outerglass Shield. Stopaq® Outerwrap improves impact and indentation resistance of the coating system and supports the self-healing ability of small damages like dents and cuts.

Features:

- Controlled cold flow providing permanent inflow 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
- 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

Application examples

Flanges: For protection against external corrosion and shaping of connection flanges, insulation flanges and blind flanges.

Valves: For protection against external corrosion and shaping of valves.

Irregular shaped parts: For protection against external corrosion and shaping of manhole covers, bolts & nuts, etc.

Cad-welds: For protection against external corrosion of welded CP-wire connections on underground pipelines (Pin-brazes) and underground steel structures protected by CP.

Pipe coating repairs: For protection against external corrosion and as filler for pipeline coating defects of e.g. 3LPE coated pipelines, prior to application of consecutive mechanical protective coating.

Product properties Stopaq® Paste CZH

Colour	Green
Density	1.4 – 1.6 g/cm ³
Temperature ranges	Operational temperatures: - 45°C to + 70°C Substrate temperature during application: - 30°C to + 70°C
Water absorption	< 0.03% (ASTM D570)
Glass transition temperature	≤ - 65°C (ISO 21809-3/A1)
Specific electrical insulation resistance	> 10 ⁸ Ω.m ² (ISO 21809-3/A1)
Adhesion test	Tested @ +23°C and +70°C (ISO 21809-3/A1) on steel (Sa 2½, St 2 and St 3) and plant coatings (PP, PE and FBE). Results on all substrates: – Cohesive failure, no evidence of adhesive failure – ≥ 99% coverage of surface – ≥ 0.6 mm residual thickness
Thermal ageing resistance and hot water immersion	Ageing 100 days @ +90°C (ISO 21809-3/A1), dry and hot water immersion: Results of adhesion test are identical to results obtained with non-aged material.
Salt spray resistance	Tested 720 h, 5% NaCl @ + 85°C (ASTM B117): No corrosion detected

Note: ISO 21809-3/A1 = ISO 21809-3:2008/Amendment 1:2011

General order information

Product:	Stopaq® Paste CZH is available in sheets, packed in siliconized foil in cardboard boxes
Art. Nr.	Packing size
6140	Sheet 2kg, 6 pcs./box, 288 pcs./pallet
Handling	Handle with care. Keep boxes upright
Storage	Store in a cool, dry and clean place, away from direct sunlight and below +45°C. Unlimited shelf life.

Application instruction: Preparation		Application instruction: Quality control	
Tools, equipment and auxiliaries	<ul style="list-style-type: none"> – Temperature probe, Dew point tester, High voltage holiday tester – Scissors, Knife, Putty knife, Measuring tape – Abrading pads, Wire brushes – Isopropyl alcohol, cas. nr. 67-63-0 – Heating blanket – Protective gloves – Personal protective gear 	Visual inspection	The appearance of Stopaq® Paste CZH must look smooth and tight and should cover all details with a thickness of at least 20 mm.
Additional materials	Depending on type of application, various additional materials might be needed: <ul style="list-style-type: none"> – Stopaq® Wrappingband CZH – Stopaq® Outerwrap PVC / PE / HTPP – Stopaq® Polyester – Stopaq® Outerglass Shield 	Holiday detection	Immediately after application of Stopaq® Paste CZH, a holiday test should be carried out with a High voltage holiday tester at ≥15 kV. A brush probe is recommended. No further testing is required.
High humidity	Stopaq® Paste CZH can be applied in a humid atmosphere. The substrate should be free from condensing water which can be reached by keeping the temperature at least 3°C above dew point.	Application instruction: Mechanical protection	
Work area and substrate	The substrate surface should be dry, clean and protected against negative weather influences.	Mechanical protection	Once applied, Stopaq® Paste CZH should be protected against impacts, indentations, soil pressure and other influences by wraps of Stopaq® Outerwrap, eventually followed by Stopaq® Polyester or Stopaq® Outerglass Shield. Mechanical protection should overlap the boundaries of applied Paste CZH.
Product conditions	Stopaq® Paste CZH should be dry and the temperature should be above +35°C for the ease of application. To achieve this, the sheets can be heated with the heating blanket.	Bringing into service	
		Exposure to loads	Objects coated with Stopaq® Paste CZH should not be exposed to loads from supports- or lifting equipment.
		Immersion or burying	Immersion or burying is possible immediately after completion of the coating application. Backfill and compact with clean sand and filling material without sharp stones or hard lumps of soil.

Application instruction: Surface preparation	
General	The area to be coated has to be clean, dry, and free from oil, grease and dust. All contamination including mill-scale has to be removed.
Degreasing	Degrease surfaces with isopropyl alcohol
Salts and bacteria	No need for additional cleaning.
Condensation of water	Prior to and during the application, the temperature of the substrate(s) must be at least 3°C above the dew point.
Substrate temperature	Temperature of the substrate should preferably be between +20 and +40°C. Preheating may be required.
Steel	Minimum requirement for surface preparation is St-2 according to ISO 8501-1. Roughness profile is not essential for adhesion.
Bitumen	Remove loose bitumen. For proper adhesion, make sure that the surface is clean and dry. Heating up the surface to +60°C may be required. Avoid recoating of moist bitumen parts.
Other substrates	De-gloss and degrease the surfaces by using an abrasive pad and isopropyl alcohol.
Final control	The substrates prepared for coating, should be clean, dry and free of dust according to ISO 8502-3, grade 3.

Application instruction: Brief version	
Boundaries in flange application	Apply wraps of Stopaq® Wrappingband CZH onto the pipe sections underneath and beyond the planned boundaries of Stopaq® Paste CZH.
Application	Apply lumps of mouldable paste around the shaped objects. Press the paste. Avoid air entrapment. After shaping, the surface should be smooth to enable proper application of additional materials.
Reinforcement	In case the layer thickness of Stopaq® Paste CZH exceeds 20mm, it is recommended to apply a reinforcement interlayer web for stabilization of the moulded paste layer.

Stopaq® information and warranty	
Documentation	Extensive information is available on our website. Application instructions, "Stopaq® Technical Standard" and other documentation can be obtained from our head office, from our local distributor or by email to info@stopaq.com
Certified staff	The application of Stopaq® coating systems should always be carried out by certified personnel.
Stopaq® performance	Extensive laboratory tests and more than 10 years of service in extreme wet and chemical aggressive environments have proven that corrosion, bacterial growth or stress corrosion cracking cannot develop on substrates coated with Stopaq® coating systems.
Long term guarantee	Stopaq® offers a 30 year guarantee on the material properties of the Stopaq® Paste materials as described in this document.



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