

Coating Repair Patch (CRP)

Features



High adhesion



High resistivity



Environmentally friendly and non-toxic



Flexible and easy to operate



Description

Our coating repair patch is specifically developed for repairing anti-corrosion coating damage on steel pipelines caused by impact. It consists of a radiation-crosslinked polyolefin substrate and a specialized sealing hot-melt adhesive. During application, the repair patch is heated to melt the specially formulated hot-melt adhesive coating, which then tightly bonds with the damaged area. This forms an integrated connection with the pipeline's original external anti-corrosion layer and adheres evenly to the pipe surface, establishing a continuous and sealed anti-corrosion system. The repair patch can withstand soil stress and hydrostatic pressure, effectively resisting cathodic disbondment, chemical corrosion, microbial erosion, and various other forms of corrosion, thus providing long-term protection for steel pipelines. The application scenario is suitable for wounds not exceeding 150 x 150mm (5.91 x 5.91in).

Storage and Shelf Life

This product should be stored in a clean, dry, and well-ventilated indoor area, away from direct sunlight. During transportation, the same conditions must be maintained, and the product must be covered. The temperature range should not be lower than 0°C (32°F) or higher than +50°C (+122°F), with humidity not exceeding 75%. Store upright, with stacking height not exceeding five layers. The shelf life is three years (re-inspection required if exceeded).

General Requirements for Applications

General: The area to be coated has to be cleandry, and free from oil.

Working face temperature: The operating surface temperature preheating treatment shall be executed in accordance with the corresponding description in the technical parameter table.

For concave working surfaces, filling adhesive should be used for correction treatment.

Properties	CRP-55	CRP-65	CRP-85	Test Method
Max Operating Temperature	55°C (131°F)	65°C (150°F)	85°C (185°F)	-
Minimum Installation Temp	60°C (140°F)	80°C (176°F)	70°C (158°F)	-
Adaptation Surface	Steel, PE, PP, FBE	Steel, PE, PP, FBE	Steel, PE, PP, FBE	-
Backing/Black				
Elongation at Break	400%			ASTM D638
Tensile Strength at Break	2450psi (17MPa)			ASTM D638
Hardness, Shore	55 Shore D			ASTM D2240
Specific Gravity	0.96g/cm³			ASTM D792
Dielectric Strength	27.6kV/mm (701volts/mil)			ASTM D149
Water Absorption	0.05%			ASTM D570
Adhesive/Black				
Softening Point	81°C (177°F)	110°C (230°F)	120°C (248°F)	ASTM E28
Lap Shear	@23°C (73°F) 2.5N/mm² (363psi)	@23°C (73°F) 2.8N/mm² (406psi)	@23°C (73°F) 5.6N/mm² (810psi)	ASTM D1002
	@50°C (122°F) 0.14N/mm² (23psi)	@60°C (140°F) 0.18N/mm² (26psi)	@80°C (176°F) 0.61N/mm² (88psi)	
Installed Sleeve				
Adhesion to Steel	@23°C (73°F) 30N/cm(7.1lb/in) @50°C (140°F) 9N/cm(5.1lb/in)	@23°C (73°F) 51N/cm(29.1lb/in) @60°C (140°F) 11N/cm(6.3lb/in)	@23°C (73°F) 78N/cm(44.5lb/in) @80°C (176°F) 10N/cm(5.7lb/in)	ASTM D1000
Cathodic Disbondment	@23°C (73°F), 28days ≤5mm (0.20in) radius @50°C (140°F), 28days ≤10mm (0.40in) radius Epoxy-containing primer	@23°C (73°F), 28days ≤5mm (0.20in) radius @60°C(140°F), 28days ≤10mm (0.40in) radius Epoxy-containing primer	@23°C (73°F), 28days ≤5mm (0.20n) radius @80°C (176°F), 28days ≤10mm (0.40in) radius Epoxy-containing primer	ISO21809-3
Impact Resistance	10J (88.5in.lbf)	11J (97in.lbf)	10J (88.5in.lbf)	ASTM G14
Low Temp. Flexibility	-25°C (13°F)	-15°C (5°F)	-25°C (-13°F)	ASTM D2671, C
Provide Product Information				
Backing	0.8mm (31.5mils)			The size can be customized
Adhesive	1.0mm (39.37mils)			
Installation Completed	≥2.0mm (78.74mils)			
Standard Sleeve Width	300 to 600mm (11.81 to 23.62in)			

Application Instruction

Step 1

Clean the exposed steel surface to ST3 or SA2½, then apply an epoxy resin primer.

Step 2

Heat the repair patch with a flame gun to melt the specially formulated hot-melt adhesive coating, ensuring it tightly bonds with the damaged area and integrates seamlessly with the original external anti-corrosion layer of the pipeline.

Step 3

During the operation, use a silicone rubber roller to flatten and compact the material, ensuring no air bubbles are generated.

Step 4

Perform holiday detection per NACE SP0274 Handling and commissioning.

Friendly Reminder

The backfill should be kept clean and should not contain any foreign matter that could damage the coating system.

For more technical inquiries, please visit our website.

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