

Hardener HSC 9310

(Low viscous modified amine curing agent)

Product Description HSC 9310 hardener can be used to formulate solvent free heavy-duty anti-corrosion coatings or flooring compounds. It can be used as accelerator to accelerate polyamidoamine or cycloaliphatic polyamine hardeners due to its high reactivity.

Features

- Excellent resistance to inorganic acids and organic solvents
- Good adhesion to concrete and sandblasted steel

Applications Suitable for application in coatings/floorings which exhibits:
Short pot life and rapid cure
Good mechanical properties

Product Specifications

Properties	Units	Reference Standard	Value
Appearance	Visual	HTP-1	Clear liquid
Color	Gardener	ASTM D1544	≤ 2
Viscosity at 25 °C	mPas	ASTM D2196	2900-3600
Amine number	mg KOH/g	ASTM D2073	395-415
Density	g/cc	ASTM D1475	0.99±0.05
AHEW	g/eq	NA	66

Mix Properties	Units	Reference Standard	Value
Mix ratio with Epoxy Resin of EEW~185	Pbw	NA	100:35
Mix viscosity @ 25 °C	mPas	ASTM D2196	~7000
Pot life (100 g) at 20 °C	Minutes	ASTM D2471	20-25

Mechanical Properties

Properties	Units	Reference Standard	Value
Hardness	Shore D	HTP-22	>70
Tensile Strength	N/mm ²	ASTM D638	72.56
Tensile Modulus	N/mm ²	ASTM D638	2800
Tensile Elongation	N/mm ²	ASTM D638	3.29
Compressive Strength	N/mm ²	ASTM D790	109
Compressive Modulus	N/mm ²	ASTM D790	2153

*The neat cast with Epoxy resin (EEW ~185) : HSC 9310 (100 : 35) were prepared as per respective standard and cured at Room Temperature for 7 days and then subjected to testing

Chemical resistance properties*¹

Chemicals	Units	Reference Standard	7 days	14 days	28 days
Sulfuric acid 10%	%	HTP-53	0.54	0.80	1.24
Hydrochloric acid 20%	%	HTP-53	0.54	0.66	0.84
Acetic acid 5%	%	HTP-53	1.77	2.19	2.90
Xylene	%	HTP-53	-4.73	-4.72	-4.70
Methanol 100%	%	HTP-53	11.92	13.54	15.49

*¹1cc of cast was prepared, cured for 7 days at Room Temperature, immersed in respective chemical and % weight change was recorded

HTP : HSCL Testing Procedure

NA : Not Applicable

Processing and Storage

Packaging HSC 9310 available in bulk packing of drums and container in packing size of 200 kg and 30 kg. For handling and pumping the maximum temperature shall not exceed 35-40°C.

Safety & Handling Following instructions needs to be followed strictly.

- Keep working conditions clean. Allow fresh air in, if possible provide ventilator.
- Avoid contact with human body directly, wear gloves and other personal protective equipment especially dust masks or respirators.
- Wash hands carefully with soap. If possible wash with acetone and alcohol first, then soap and water.
- In case of eye contact, wash with running water for 15 minutes and then seek medical treatment.

Refer MSDS for better instruction on Safety & Handling

Storage Conditions HSC 9310 should be stored at room temperature free of moisture, in the original containers kept tightly closed at temperatures between 5-35°C. Container once opened should be tightly closed to avoid contamination by foreign materials. The shelf life for hardener HSC 9310 is 24 months from date of manufacturing.

Disclaimer

All recommendations for use of our products, whether given by us in writing, verbally or to be implied from results of tests carried out by us are based on the current state of our knowledge. Notwithstanding any such recommendations the Buyer shall remain responsible for satisfying himself that the products as supplied by us are suitable for his intended process or purpose. Since we cannot control the application, use or processing of the products, we cannot accept responsibility. Therefore, the Buyer shall ensure that the intended use of the products will not infringe any third party's intellectual property rights. We warrant that our products are free from defects in accordance with and subject to our general conditions of supply.

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