

Hardener HSC 9320

(Very low viscous modified amine curing agent)

Product Description HSC 9320 hardener can be used to formulate solvent free compound for application in floor coatings, protective and decorative coatings and chemical resistant coatings.

- Features**
- Low viscosity, colour stability
 - Good resistance to hydrochloric 20%, sulfuric acid 50%, xylene
 - Good flexibility and hardness

Applications Suitable for application in protective coatings/floorings.

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	30-70
Amine number	mg KOH/g	ASTM D2073	325-350
Density	g/cc	ASTM D1475	1.00±0.05
AHEW	g/eq	NA	85

Mix Properties	Units	Reference Standard	Value
Mix ratio with Epoxy Resin of EEW~185	Pbw	NA	100:45
Mix viscosity @ 25 °C	mPas	ASTM D2196	~900
Pot life (100 g) at 20 °C	Minutes	ASTM D2471	40-60

Mechanical Properties

Properties	Units	Reference Standard	Value
Hardness	Shore D	HTP-22	>70
Tensile Strength	N/mm ²	ASTM D638	40
Tensile Modulus	N/mm ²	ASTM D638	4733
Tensile Elongation	N/mm ²	ASTM D638	0.85
Compressive Strength	N/mm ²	ASTM D790	82.5
Compressive Modulus	N/mm ²	ASTM D790	2483

*The Epoxy resin (EEW ~185): Silica: HSC 9320 (100:100:45) cast 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	3 days	7 days	14 days	28 days
Sulfuric acid 10%	%	HTP-53	1.12	2.00	2.28	3.61
Nitric acid 10%	%	HTP-53	0.85	1.42	1.95	2.92
Acetic acid 10%	%	HTP-53	4.74	7.13	8.90	11.90
Toluene	%	HTP-53	0.45	0.89	1.22	1.92
Formic acid 10%	%	HTP-53	8.10	12.04	15.31	18.70
Lactic acid 5%	%	HTP-53	0.50	0.85	1.16	1.92
Ammonia 25%	%	HTP-53	0.58	0.83	1.00	1.21
HCl 37%	%	HTP-53	1.27	1.76	1.94	2.54
Ethanol 50%	%	HTP-53	0.57	0.85	1.20	1.71

*1cc 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 9320 available in bulk packing of drums and container in packing size of 200 kg and 30 kg.

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 9320 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 9320 is 12 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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