



Civil Applications

Description

HSC 7450 low viscosity modified epoxy resin for various civil applications. HSC 8230 is medium viscosity reactive polyaminoamide hardener. The convenient mixing ratios and low mix viscosity of system permits good filler loading and exhibit great mechanical properties.

Application and Key Properties

Flooring primer and screed applications, maintenance of old civil structures and injection grouting.

The system gives superior substrate wetting, good mechanical strength and chemical resistance with enhancement in bonding strength.

Product Specifications

Resin HSC 7450

Properties	Units	Reference Standard	Value
Appearance	Visual	HTP-1	Clear Liquid
Viscosity @ 25°C	mPas	ASTM D2196	500-700
Color	Gardener	ASTM D1544	Max 1
EEW	g/ Eq	ASTM D1652-97	180-190

Hardener HSC 8230

Properties	Units	Reference Standard	Value
Appearance	Visual	HTP-1	Clear Liquid
Viscosity @ 25°C	mPas	ASTM D2196	10000-25000
Color	Gardener	ASTM D1544	Max 12
AHEW	NA	NA	97

Product Performance Data

Properties	Units	Reference Standard	Typical Value
Primer Applications (HSC 7450: HSC 8230)			
Mixing Ratio	Pbw	NA	100:50
Mix Viscosity @ 25°C	mPas	ASTM D2196	1500-2500
Pot life 100g @ 25°C	Min.	HTP-16	60
Dry time @ 25 °C	Hrs.	ASTM D5895	4-5
Tensile Shear Strength, Al-Al	Kg/ sq. cm	ASTM D1002	80

Mortar Application (HSC 7450: HSC 8230: Quartz: BYK-A530)

Mix Ratio	Pbw	NA	100:50:500:1
Specific Gravity	NA	HTP-6	1.8
Compressive Strength	Kg/sq. cm	ASTM D695	800
Flexural Strength	Kg/ sq. cm	ASTM D790	400
Coverage	Kg/sq. m per mm	NA	~2

Mortar Application (HSC 7450: HSC 8230: Quartz: BYK-A530)

Mix Ratio	Pbw	NA	100:50:800:1
Specific Gravity	NA	HTP-6	2
Compressive Strength	Kg/sq. cm	ASTM D695	900
Flexural Strength	Kg/ sq. cm	ASTM D790	300
Coverage	Kg/sq. m per mm	NA	~2.1

Foundation grouting of heavy machines and equipment's (HSC 7450: HSC 8230: Quartz: BYK-A530)

Mix Ratio	Pbw	NA	100:50:800:1
Specific Gravity	NA	HTP-6	2
Compressive Strength	Kg/sq. cm	ASTM D695	900
Flexural Strength	Kg/ sq. cm	ASTM D790	300

HTP: HSCL Testing Procedure

Product Performance Data

Properties	Units	Reference Standard	Typical Value
Injection Grouting of Cracks (HSC 7450: HSC 8230)			
Mix Ratio	Pbw	NA	100:50
Mix Viscosity @ 25°C	mPas	ASTM D2196	1500-3000
Compressive Strength	Kg/sq. cm	ASTM D695	600
Flexural Strength	Kg/sq. cm	ASTM D790	400
Tensile Shear Strength	Kg/sq. cm	ASTM D1002	80

Quartz Sand Mix No. 10 Analysis **(For data generation this grade has been used)**

B. S. Sieve No.	% Retained
36	10
52	25
72	20
100	10
150	15
240	20

HTP: HSCL Testing Procedure

Processing and Storage

Mixing

Prolonged storage of Part A along with fillers causes precipitation. Hence it is advisable to mix fillers before preparation. Materials to be thoroughly mixed prior usage including bottom of the container. Uneven mixing will affect the final cured properties.

Curing

Once Part A and Part B is mixed, colour change occurs after a set period of time. This is a normal phenomenon and does not affect the cured product properties. Part A and B should be mixed gently otherwise bubble formation will occur. Low temperature leads to long curing schedule and hence heat curing is advisable.

Storage Conditions

Part A & B should be stored away from light & heat. Partly emptied containers should be tightly closed immediately after use to avoid exposure to light. For information on waste disposal and hazardous products of decomposition in the event of a fire, refer to the Material Safety Data Sheets (MSDS) for these particular products. The shelf life is 12 months for both Part A and Part B.

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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