



Casting Systems

Description

HSC 7760 is low viscosity modified epoxy resin for casting of moulds into tooling industry. HSC 8210 is very low viscosity aliphatic amine hardener. The low mix viscosity of system permits good filler loading and exhibit great mechanical thermal properties along with low shrinkage

Application and Key Properties

Casting of moulds & tools.

The system offers superior mechanical strength, good thermal and chemical resistance.

Product Specifications

Resin HSC 7760

Properties	Units	Reference Standard	Value
Appearance	Visual	HTP-1	Clear Liquid
Viscosity @ 25°C	mPas	ASTM D2196	1000-1800
Color	Gardener	ASTM D1544	Max 1
EEW	g/ Eq	ASTM D1652-97	230-240

Hardener HSC 8210

Properties	Units	Reference Standard	Value
Appearance	Visual	HTP-1	Clear Liquid
Viscosity @ 25°C	mPas	ASTM D2196	Max 20
Color	Gardener	ASTM D1544	Max 1
AHEW	NA	NA	23

Product Performance Data

Properties	Units	Reference Standard	Typical Value
Gel time, mix viscosity & curing schedule			
Mixing Ratio	Pbw	NA	100:10
Mix Viscosity @ 25°C	mPas	ASTM D2196	900
Pot life 100g @ 25°C	Min.	HTP-16	90
Cure Schedule	NA	NA	24h RT+4h 60°C

Mechanical and Thermal Properties

Tensile Strength	MPa	ASTM D638	20
Tensile Modulus	MPa	ASTM D638	5000
Flexural Strength	MPa	ASTM D790	30
Compressive Strength	MPa	ASTM D695	70
Impact Strength	MPa	ASTM D256	15
Glass Transition Temperature	°C	DSC	45

*100g Resin+ 10g Hardener + 200g filler

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

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