



# Casting Systems

## Description

HSC 7560 is a low viscosity modified epoxy resin to serve electrical potting & casting applications. HSC 8210 is very low viscosity aliphatic amine hardener. The low mix viscosity of system permits good filler loading and exhibits superior mechanical, electrical and thermal properties.

## Application and Key Properties

Potting and encapsulation of low voltage electrical and electronic components like CDI, Flashers, ignition coils, charging coils, igniters, capacitors, rectifiers, etc.

The system offers superior mechanical and electrical properties along with good water resistance.

## Product Specifications

### Resin HSC 7560

Properties	Units	Reference Standard	Value
Appearance	Visual	HTP-1	Clear Liquid
Viscosity @ 25°C	mPas	ASTM D2196	1300-1800
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

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Properties	Units	Reference Standard	Typical Value
<b>Gel time, mix viscosity &amp; curing schedule</b>			
Mixing Ratio	Pbw	NA	100:10
Mix Viscosity @ 25°C	mPas	ASTM D2196	850
Pot life 100g @ 25°C	Min.	HTP-16	90
Cure Schedule	NA	NA	24h RT or 6h RT+4h 60°C
<b>Mechanical Properties</b>			
Tensile Strength	MPa	ASTM D638	50
Elongation at Break	%	ASTM D638	10
Tensile Modulus	MPa	ASTM D638	2600
Hardness	Shore D	HTP-22	80
<b>Electrical Properties</b>			
Electric Strength	kV/mm	IEC 60243-1	19.5
Tan $\delta$ , 50Hz, 25°C	%	IEC 60250	1.1
Volume Resistivity	$\Omega$ cm	IEC 60093	10 <sup>15</sup>
Arc Resistance	sec	IEC 61621	185
Tracking Resistance	sec	IEC 60112	600
<b>Thermal and General Properties</b>			
Casting Color	Visual	HTP-52	Slight Yellowish
Glass Transition Temperature	°C	DSC	63
Water Absorption, 24h @ 25°C	% weight	HTP-53	0.22
Peak Exothermic Temperature, 100g mix	°C	HTP-54	135

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### HTP: HSCL Testing Procedure

## **Processing and Storage**

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### **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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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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