

# POLYPLEX CLR SOLID SURFACE RESIN

**Technical Datasheet** 

#### PRODUCT CODE: C200037

Polyplex Clear Solid Surface Resin is a pre-promoted, low reactivity, Iso NPG blended polyester resin especially formulated for use in clear casting applications. The resin is pre-promoted for room temperature cure with methyl ethyl ketone peroxide (MEKP) initiators. Polyplex Clear Solid Surface Resin is non-thixotropic and wax-free.

# **FEATURES**

- · Low colouration and excellent clarity in castings
- Long gel time with low exotherm cure characteristics following gelation
- Non thixotropic

# **BENEFITS**

- Suitable for colour critical clear and ATH filled casting applications
- · Reduced tendency towards shrinkage related problems in thick castings
- Air release is unimpaired

# **RELATED PRODUCTS**

C220021: ISO-NPG based solid surface casting resin

# **RECOMMENDED CATALYST**

1% Curox NR20

# **TYPICAL LIQUID RESIN PROPERTIES**

PROPERTY	TYPICAL VALUE	TEST DETAILS
Appearance	Clear Liquid	
Viscosity	400 - 500 cP	Brookfield LVT sp.2/60 rpm
Geltime	25 – 35 minutes	1% MEKP Interox NR20
Density	1.10gcm <sup>-3</sup>	
Styrene Content	35 - 37%	
Flash Point	31° C	Setaflash
Shelf Life	6 months	when stored in original closed container, in the shade

Typical values: Based on materials tested in our laboratories, but varies from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

# TYPICAL CAST UNFILLED RESIN PROPERTIES

PROPERTY	TYPICAL VALUE	TEST DETAILS
Hardness	40 – 45	Barcol Impressor
Density	1.19 gcm <sup>-3</sup>	ISO R1183
Volume Shrinkage	7-8%	ISO 3521
Tensile Strength	70 MPa	ISO R527
Flexural Strength	105 MPa	ISO 178
Compressive Strength	129 MPa	ISO 178
Elongation at break	2%	ISO R527
Heat Distortion Temperature	70 - 75° C	ISO 175 (1.8 MPa)

Cast resin was prepared as laid down in BS 3532 using 1% MEKP. Cured at room temperature for sixteen hours then post cured for two hours at  $80^{\circ}$  C followed by two hours at  $100^{\circ}$  C.

#### STORAGE AND HANDLING

To ensure maximum stability and maintain optimum resin handling properties, polyester resins should be stored in closed containers, away from heat sources and sunlight. The resin should be stored away from all sources of ignition. Stored resin quantities should be kept to a reasonable minimum and used on a first in/first out stock rotation basis.

# STANDARD PACKAGING

Mild Steel Drums (225kg)

Always refer to the MSDS before use