GP® 582D58 Phenolic Impregnating Resin

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PRODUCT INFORMATION

INTRODUCTION

GP® 582D58 phenolic impregnating resin was specifically developed for use in the manufacture of composite parts by SMC and BMC processes. GP 582D58 resin delivers the flame resistance and low smoke characteristics beneficial in composite applications. Furthermore, it shows high strength and modulus properties on fiberglass similar to those of polyesters.

GP 582D58 resin is waterborne and contains no organic solvents.

APPLICATIONS

As a phenolic resole, GP 582D58 does not require an external catalyst. However, use of a base catalyst provides a significantly faster cure speed. Pot life is decreased with the use of a base catalyst. Therefore, refrigeration of the SMC and BMC mixtures is required.

GP 582D58 resin is designed to process on polyester SMC and BMC systems. The recommended starting formulation for SMC/BMC process is shown on page 2.

STORAGE AND HANDLING

GP 582D58 resin should be used in areas with good ventilation. Storage at temperatures at or below 40°F (5°C) is recommended. The resin should be brought to room temperature prior to use. Georgia-Pacific Chemicals supplies GP 582D58 resin in drums and bulk quantities. Additional information on the safe handling of GP 582D58 resin is in the Safety Data Sheet available from Georgia-Pacific Chemicals.

TYPICAL PROPERTIES

Type	Phenol-formaldehyde resole
Appearance	Amber to brown liquid
Non-Volatiles, %	74 – 78
Viscosity, cps	500 – 800
pH	7.0 – 8.0
Water, %	12 – 14
Weight per gallon, lb.	10.0 – 10.3
Flash Point, °F	>200
Storage Life @77°F (25°C)	30 days
Storage Life @40°F (5°C)	90 days

Georgia-Pacific Chemicals

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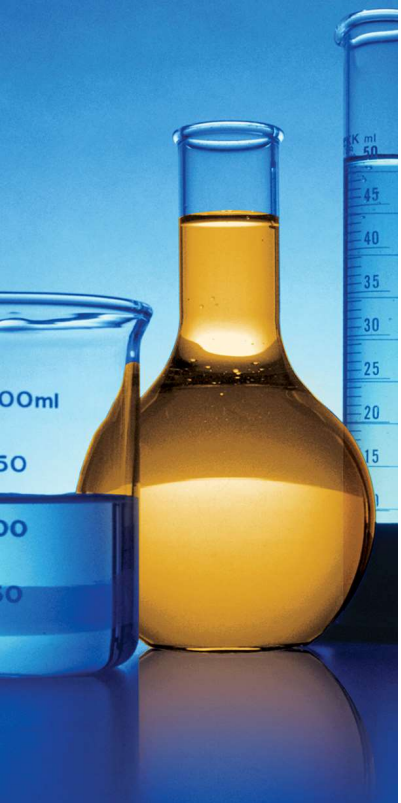

RECOMMENDED STARTING FORMULATION FOR SMC AND BMC PROCESSES

Component	Parts by Weight (pbw)
Resin	100
Filler	60
Catalyst Paste*	6 – 8
Release Agent	1.0 – 1.5
Glass (1 inch chopped)	60 – 70

**Catalyst Paste: 1:1 pbw Calcium Oxide (CaO) and liquid Polyol.*
Adjust formulation for amounts of resin/filler/catalyst per required tack, viscosity and cure speed.

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