REVCHEM Composites

30A403D-S

Polyester Resin

Product Information

Revchem Low Profile Laminating Resin

TYPICAL CAST MECHANICAL PROPERTIES (2) SEE BACK PAGE

	NOMINAL	TEST METHOD
Tensile Strength, PSI/ MPa	9,000/62	ASTM D-638
Tensile Modulus, PSI/ GPa	570,000/3.9	ASTM D-638
Tensile Elongation %	2.0	ASTM D-638
Flexural Strength, PSI/MPa	14,000/97	ASTM D-790
Flexural Modulus, PSI/ GPa	590,000/4.1	ASTM D-790
Heat Distortion Temperature, ºF/ ºC @ 264psi	203/95	ASTM D-648

*Typical properties are not to be construed as specifications.

Revchem will custom formulate this product to meet the processing needs of the customer. Listed below are the liquid and curing properties of Revchem 30A403D-S, which is one of the versions of this product.

TYPICAL LIQUID RESIN PROPERTIES*

	NOMINAL
Viscosity @ 77ºF/25ºC, LVF Brookfield Spindle #3 @ 60 rpm, cps.	450
Thix Index (6/60 rpm)	3
Maximum Volatiles, %	35

TYPICAL LIQUID RESIN PROPERTIES*

100 Gram Mass
Catalyst, 1.0% CAdox M-50a

Gel Time @ 77ºF/25ºC, minutes	20	C-100-1
Gel to peak, minutes	20	C-100-1
Peak Exotherm, ºF/ºC	329/175	C-100-1

*Typical properties are not to be constructed as specifications.

Description

Revchem 30A403D-S is a medium reactive, thixotropic, pre-promoted resin designed for use in the manufacturing of boats and other composite parts using hand lay-up or spray-up application methods.

Features & Benefits

- Fast laminate cure allows for faster production rates without the loss of surface profile.
- Reduced post cure.
- Fast and complete fiber wet-out.
- Good resistance to osomotic blistering. (For improved blister resistance, a skin coat made with Hydropel® H034-A, H100-W or H100-M can be used)
- Will provided good physical properties in finished part.
- Adaptable to a variety of manufacturing processes and conditions.
- Meets MACT requirements for low HAP resins in the marine industry.

30A403D-S

Polyester Resin

PERFORMANCE GUIDELINES

A. Keep full strength catalyst levels between 1.0% - 2.0% if the total resin weight.

B. Maintaining shop temperatures between 65ºF/18ºC and 90ºF/32ºC and humidity between 40% and 90% will help the fabricator make a high quality part. Consistent shop conditions contribute to consistent gel times.

C. Sanding and/ or grinding is recommended if a secondary bond is applied to a laminate that was made with a resin containing wax.

STORAGE STABILITY

This product is stable for three months from date of manufacture when stored in the original containers away from direct sunlight or other UV light sources and at or below more than 77ºF/25ºC.

Storage stability of two months or less should be anticipated if the storage temperature exceeds 86ºF/30ºC.

After extended storage, some drift may occur in the product viscosity and gel time.

SAFETY

See appropriate Material Safety Data Sheet for guidelines.

APPLICATION GUIDELINES

Due to the excellent curing characteristics of Revchem 30A403D-S resin, complete all secondary bonding as soon as possible. Exposing the laminate to sunlight will result in severe secondary bonding problems. After 24 hours of cure, it may be necessary to abrade the laminate to insure good secondary bonding, especially if the surface of the laminate is resin rich. Avoid low fiberglass content and resin puddling with this product.

To assure adequate bonding to gel coats, fabricators should pre-wet the gel coat surface with a thin pass of catalyzed resin prior to lamination.

Chemical resistance studies indicate that resins like 30A403D-S have very poor resistance to certain hydrophobic liquids, such as hydrocarbons. Fuel storage tanks should not be produced with the Revchem 30A402D-S resin.

If your manufacturing needs require a more corrosion resistant resin, please contact your Revchem Composites representative for information or technical assistance on Revchem's line of isophthalic or vinyl ester resins.

FOOT NOTES

(1)
Based on tests at 77ºF/25ºC and 50% relative humidity. All tests performed on unreinforced cured resin castings. Thixotropic components, if applicable are excluded from casting samples. Castings were post cured.

(2)
The gel times shown are typical but may be affected by catalyst, promoter, and inhibitor concentrations and resin, mold and shop temperature. Variations in gelling characteristics can be expected between different lots of catalysts and at extremely high humidities. Pigment and fillers can retard or accelerate gelation. It is recommended that the fabricator check gelling characteristics of a small quantity of resin under actual operating conditions prior to use.

The information contained in this data sheet is based on laboratory data and field experience. We believe this information to be reliable, but do not guarantee its application to the user's process or assume any liability for occurrences arising out of its use. The user, by accepting the products described herein, agrees to be responsible for thoroughly testing each such product before committing to production.

Our recommendations should be taken as inducements to infringe any patent or violate any law, safety code or insurance regulation.

REVCHEM Composites

2720 South Willow Avenue #B
Bloomington, California 92316
(909) 877-8477 fax (909) 877-8475

Effective Date: October, 2012