PRODUCT BULLETIN

May 2023

PATCHAID® 970XD153

Resin-Based Aid for Spray Patching 99F Series Gel Coats

DESCRIPTION

PATCHAID® 970XD153 is a pre-promoted, resin and monomer solution that, when mixed with Armorflex® 99F Series gel coat, improves the working properties for spray patches. Use of PATCHAID® lowers the viscosity of the gel coat, minimizing orange peel. Use of PATCHAID® will also accelerate cure and reduce surface tackiness. This Polynt PATCHAID® product is light-stabilized to minimize differences in weathering between the original gel coat surface and the patch.

NOTE: PATCHAID® 970XD153 is formulated for use with Armorflex® 99F Series gel coats only and contains additives to facilitate tack free patch cure in non-ideal environmental conditions such as low ambient temperatures.

BENEFITS & FEATURES

- Low color to provide an excellent color match between the gel coat and patch
- Low viscosity for easier spray and less orange peel
- Light stabilized to minimize discoloration of patches
- Good surface cure, which minimizes sandpaper "gumming"
- Excellent sanding and buffing due to proprietary additives and less orange peel

NOTE: Patching materials for open mold processing are exempt from the MACT standard. The Environmental Protection Agency National Emission Standards for Hazardous Air Pollutants for Boat Manufacturing (NESHAP), 40 CFR Part 63, lists exemptions in subpart 63.5698, paragraph (d) (2) which states: "Pigmented, clear, and tooling gel coat used for part or mold repair and touchup. The total gel coat materials included in this exemption must not exceed 1 percent by weight of all gel coat used at your facility on a 12-month rolling-average basis."

PROPERTIES – LIQUID

	PATCHAID®
Test(1)	**970XD153**
Viscosity(2)	50 cps
Thixotropic Index (6/60)	N/A
Gel Time(3)	7 minutes
Gel to Peak	N/A
Peak Exotherm	N/A
Weight per Gallon	8.6 lbs

1) All properties at 25°C/77°F unless otherwise noted
2) Brookfield Viscometer LVF Spindle #1 at 60 RPM
3) 2% Arkema Luperox® DDM-9

APPLICATION

PATCHAID® 970XD153 was formulated specifically for use with patching of Armorflex® 99F Series gel coats when ambient conditions such as low temperatures result in excessive backside patch tack with universal PATCHAID® products like 970XJ037.

A typical patching mix for spray patches is shown below:

Material	Minimum Mix (50 cc's)	Typical Mix (100 cc's)
Gel Coat	35 cc's	70 cc's
PATCHAID® 970XD153	15 cc's	30 cc's
Catalyst	1 cc (40-50 drops)	2 cc's

Mixtures can be scaled up by multiplying by 1 for each additional 100 cc's, i.e. 500 cc's times 5, 1000 cc's times 10.

The patching mix will typically have a 100 g mass gel time that is 5 minutes faster than the gel coat. The patch will typically be ready to sand in 2 hours.

Identify the area to be repaired. Locating repair edges at design lines, break lines, or other part.

Secure the lid of the PATCHAID® 970XD153 container after each use. An open container will lose styrene and pick up dirt. Both can have negative effects on patches.

Gel and sanding times can vary greatly depending on the age of materials; gel and cure times of the gel coat used; temperature of air, part, and material; humidity; air movement; and catalyst, both amount and type, and patch thickness.

Catalyzed masses get very hot as they cure. Polynt recommends that excess catalyzed patching materials be placed in a bucket of water.

The 970XD153 PATCHAID® has special additives to allow improved patch cure at colder temperatures. These additives can 'kick out' of the solution in the container more readily than other PATCHAID® products even at typical ambient temperatures. To ensure proper dispersion of these additives, the container must be warmed to at least 100°F and stirred before dispensing any material for use. Any undispersed additive will float to the top and will appear as a sheen or waxy film. If this is observed, additional warming and mixing will be required.

CAUTION
If the wax solution is allowed to cool to less than 70°F, it could become cloudy and not be a uniformly dispersed solution. If this occurs, increase the temperature of the wax solution until restored to a clear appearance before using. Mildly agitate the wax solution before using.

The vehicle for the wax solution is styrene, and all safety precautions should be followed when using styrene. This material should be fully tested by the user to determine that it will meet all of their application and performance requirements. Do not use this material at temperatures below 70°F.

If wax solution becomes thick as syrup or contains solid particles, it should not be used.

Wax solution should not be used where the material surface is to receive further coatings or lamination. If used, thorough sanding and solvent washing should precede the next step.

Both product age and viscosity should be observed to avoid using polymerized material. Avoid excess usage because this may increase yellowing on exposure due to natural weathering.

Refer to Polynt's Composites Applications Guide ("Cookbook") for equipment and application recommendations. Each user must determine the suitability of this product to his/her particular mode of operation and intended end-use application. A Polynt representative will be available to assist in the proper selection of all Polynt products available for commercial use.

SHELF LIFE & STORAGE

In storage before initial use, PATCHAID® 970XD153 has a shelf life of 90 days from date of manufacture when stored at 73°F or below in a closed, factory sealed, opaque container, and out of direct sunlight. The shelf life is cut in half for every 20°F over 73°F.

It's suggested to dispense newly opened containers, after appropriate heat up, into smaller containers for easier handling for subsequent warming and expected reduced shelf life.

SAFETY & WARRANTY

To receive a copy of our safety and warranty information, please email safetyandwarranty@polynt.com.