PRODUCT BULLETIN

May 2023

PATCHAID® 970X900, 970XJ037, 970XA014

Resin-Based Aids for Spray Patching

DESCRIPTION

The PATCHAID® products covered in this bulletin (970X900, 970XJ037, and 970XA014) are pre-promoted, resin and monomer solutions that, when mixed with gel coat, improve 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. These Polynt PATCHAID® products are light-stabilized to minimize differences in weathering between the original gel coat surface and the patch.

NOTE: Because these PATCHAID® products contain wax, they should not be added to clear gel coats as that could lead to hazing the clear gel coat film.

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
- Very fast cure (appropriate type) allows for fast working time and quicker repairs
- Long working time (appropriate type) is advantageous for repairing large defects and for mold resurfacing
- Light stabilized to minimize discoloration of patches made using clear gel coats and pigmented gel coats
- Good surface cure, which minimizes sandpaper "gumming"
- Excellent sanding and buffing due to proprietary additives and less orange peel
- Easy mold resurfacing; see Polynt's Composites Applications Guide, Chapter 12: Tooling – Mold Repair

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

Property[1]	Unit	970X900	970XJ037	970XA014
Total VOC's	%	51.8	-	-
Viscosity	cps	125[2]	53[3]	125[2]
Thix Index	-	1.9	-	1.9
Gel Time[4]	minutes	9	6.5	6
Weight per Gallon	lbs/gal	8.76	-	-

1) All properties at 25°C/77°F unless otherwise noted
2) Brookfield Viscometer LVF Spindle #2 at 60 RPM
3) Brookfield Viscometer LVF Spindle #1 at 60 RPM
4) 2.0% DDM-9

APPLICATION

PATCHAID® products and appropriate application methods include the following:

970XJ037 SPEED PATCHAID®	Resin-based for aerosol bottles and conventional touchup spray guns
970X900 SPEED PATCHAID®	Resin-based for conventional touchup spray guns
970XA014 PATCHAID®	Resin-based for conventional touchup spray guns

PATCHAID® 970XJ037 was formulated specifically so acetone would not be necessary when using aerosol spray bottles.

For best surface cure (less sticky), PATCHAID® 970XJ037 is recommended for all products, especially Polynt's 951, 953, and 96X Series gel coats.

Gel Time of PATCHAID® and Typical Mixture (in % or cc's)			
	970XJ037	970X900	970XA014
Gel Coat (ARMORCOTE®)	70	70	70
PATCHAID®	30	30	30
Initiator	2.0	2.0	2.0
Cup Gel Time	5 minutes shorter than gel coat	5-10 minutes	5 minutes shorter than gel coat
Sanding Time	30-45 minutes	45-60 minutes	30-45 minutes

Recommended Procedure:

Prepare patching mix as follows:

Material	Minimum Mix (50 cc's)	Typical Mix (100 cc's)
Gel Coat	35 cc's	70 cc's
PATCHAID®	15 cc's	30 cc's
Initiator	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.

NOTE: Because of the dilution effect of adding a PATCHAID®, some reduction in hide will occur. This is normal and will not affect the quality of the patch.

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

The shelf life of PATCHAID® 970X900, 970XJ037, and 970XA014 is 90 days from the date of manufacture from Polynt. To maximize usage life and maintain optimum properties, resins and gel coats should be stored in the original closed container at temperatures below 23°C/73°F and away from ignition sources and sunlight. Keep containers sealed to prevent moisture pick-up and monomer loss.

SAFETY & WARRANTY

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