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TECHNICAL DATA SHEET
SB-112 SURF & SAILBOARD LAMINATING RESIN

DESCRIPTION:

SB-112 epoxy is a clear, almost water-white high-modulus epoxy resin system especially formulated for use in building surf and sail boards over polystyrene cores. Unlike many epoxy resin systems it cures to a glossy, blush free surface. **It is unique in that polyester resins and gel coats may be bonded directly to it without using "tie coats".**

RESIN PROPERTIES:

Viscosity @ 77° F 550 cps
Density9.3 lb/gal
Color Clear

HARDENER PROPERTIES:

Viscosity @ 77° F 350 cps
Density8.49 lb/gal
Color Clear

MIXED SYSTEM PROPERTIES:

Mix ratio by weight resin/hardener 100/44
Mix ratio by volume resin/hardener 100/50
Working time @ 70° F 37minutes
Minimum use temperature 60° F

TYPICAL CURED PROPERTIES:

Full cure @ 25° C 7 days
Hardness ,Shore D 82
Tensile Strength, psi 7,800
Tensile Elongation at break. 8%
Flexural Strength, psi 12,000
Flexural Modulus, psi 375,000
Heat Deflection Temperature (°F). 127
Compressive Strength, psi
 at Yield 13,000
 at Failure 26,000

For health and safety information concerning this product, please refer to the MSDS sheets for SB-112.

The information contained herein is based on the data available to us and is believed to be correct. However, System Three Resins, Inc. makes no warranty, expressed or implied, regarding the accuracy of these data or the results to be obtained from the use thereof. System Three assumes no responsibility for injury from the use of the product described herein.

SB-112

SURF & SAILBOARD LAMINATING RESIN

INTRODUCTION

SB-112 laminating epoxy will cure to a hard sandable state in as little as 16 hours at 65°F; sooner at warmer temperatures. At that time it is ready for polyester bonding. This epoxy system is formulated to have maximum ultra violet light resistance consistent with its other properties. However, no epoxy resin system is ultimately resistant to degradation by sunlight. We recommend that the boards built using SB-112 epoxy be protected from sunlight exposure when not in use to increase longevity.

USE AND APPLICATION

SB-112 epoxy is mixed in the ratio of two parts of resin (Part A) to one part of hardener (Part B) by VOLUME (100 to 44 parts by weight). The mix ratio should never be altered. Mixing more hardener will not "hot batch" the system and will result in an inferior cure. The only way to speed cure is the addition of heat. After measuring, the system should be thoroughly mixed. Inadequate mixing will produce spotty, inconsistent cures. Because SB-112 epoxy is relatively fast only an amount that can be used within 15 minutes should be mixed at one time. It is better to make several smaller batches rather than one big batch. The only preparation required is sanding immediately prior to bonding the polyester-based resin.

Tests have shown that polyester resin bond strengths are highest when done on freshly sanded SB-112 epoxy that has cured overnight. Bond strength falls away as the epoxy cure time increases. Polyester should always be applied to freshly sanded epoxy. Samples cured for 16 hours, sanded and set aside for a week prior to polyester bonding showed bond line

failure unless they were again sanded immediately prior to an epoxy covered board has aged for several weeks, sanding the surface and recoating with SB-112 epoxy will reset the clock with respect to polyester application.

We have had good results when using polyester to fill the weave of unsanded epoxy saturated cloth. The unfilled surface aids in bonding since it is rough. It should be given a polyester fill coat after an overnight cure. Waiting longer than 48 hours decreases the chance of having a successful bond.

SAFETY AND HANDLING

We urge all users of this product to read and understand the MSDS. The chief health hazard with epoxy resins is repeated skin contact. When working with epoxy resin avoid skin contact. Wear disposable gloves. If material does contact skin immediately remove it using soap and warm water or a good waterless hand cleaner. Never use acetone or other solvents to remove epoxy from the skin.

TESTING AND PRECAUTIONS

It is not possible for us to determine the suitability of use of SB-112 with all polyester resins. Our tests used Reichold Chemical Company's general purpose orthophthalic laminating resin (33-049) and Lilly-Ram's ISO-NPG white gel coat (W 2020). Tests using fiberglass used Hexcel 11522, 4 ounce cloth. While we believe that the results we achieved with these materials will be duplicated using similar products we have no way of knowing for sure as we have not tested them. Therefore, the user of our product is solely responsible for its success or failure in his application. We urge each user of SB-112 epoxy to thoroughly test our product in conjunction with the polyester and fiberglass he will be using to satisfy himself that the entire system works as desired.