WYN-STIK
TECHNICAL PRODUCTS FOR MAINTENANCE AND CONSTRUCTION

# ES6315 Epoxy Adhesive

## DESCRIPTION

ES6315 is a versatile epoxy adhesive that provides very good bond strengths to many substrates under a variety of exposure conditions. ES6315 cures to a tough, slightly resilient product, which makes it ideal for bonding dissimilar materials. ES6315 is also an excellent candidate for applications that are exposed to high humidity and water immersion, due to its resistance to brine and fresh water alike.

## TYPICAL APPLICATIONS

ES6315 is well suited for a wide variety of commercial and industrial applications where its high bond strengths provide excellent service. ES6315 is a very good adhesive for bonding reinforced plastics to metal and itself, and for composite structures, due to its tough cure and ability to bond dissimilar surfaces. The moisture resistant nature of ES6315 is such that it will even cure underwater. This feature has enabled it to be used extensively in the repairing of water reservoirs, either underwater or on the surface, and the patching and repairing of drainage ditches, concrete pipe and transite. It has also been used for various assemblies and repairs on offshore drilling rigs, aa well as numerous marine applications.

## PRODUCT SPECIFICATIONS

| | ES6315 A | ES6315 B | ASTM Method |
|---|---|---|---|
| Color | Yellow | Black | Visual |
| Viscosity, centipoise | 12,000 - 15,000 cps | 50,000 - 60,000 cps | D2392 |
| Specific Gravity, gms./cc | 1.60 | 1.45 | D1475 |
| Mix Ratio, By Wt. | 100 : 100 By Weight or Volume | | PTM&W |
| Pot Life, 4 fl. Oz. Mass @ 77°F | 60 - 90 minutes | | D2471 |

## HANDLING and CURING

1. All surfaces to be bonded or patched must be free of dirt, oil, grease, rust and corrosion.

2. For best bond strength, roughen all surfaces to be repaired or bonded. The rougher the surface, the better the bond.

3. Mix A and B components at the proper ratio until uniform in color and consistency. After mixing, ES6315 must be used within one hour.

4. If the area to be patched is underwater, place mixed material in a plastic bag and then take underwater to the area to be patched. Remove ES6315 from bag and displace water from damaged area by pressing the mixed material firmly into the area to be repaired.

5. If area to be bonded is not underwater, apply mixed material to roughened area to be bonded. Press firmly together and let set for 4 hours at 75°F. If necessary, place in a jig or other holding device to prevent movement during initial curing time.

6. When patching holes over 1 inch deep, fill half way and allow to partially cure for 45-60 min. at 75°F. Then complete filling of the hole and smooth surface.

## TYPICAL MECHANICAL PROPERTIES

| | | ES6315 A/B | ASTM Method |
|---|---|---|---|
| Mix Ratio, By Weight | | 100 : 100 By Weight or Volume | PTM&W |
| Pot Life, @ 77°F | | 60 - 90 minutes | D2471 |
| Color | | Olive | Visual |
| Cured Hardness, Shore D | | 84 Shore D | D2240 |
| Tensile Lap Shear, psi | Alum. to Alum.<br>Steel to Steel | 4,810 psi<br>4,960 psi | D1002 |
| Specific Gravity, grams, cc | | 1.52 | D1475 |
| Density, | lb./cu. Inch<br>lb./gallon | .0550<br>12.7 | D792 |
| Specific Volume, cu. in./lb. | | 18.2 | |
| Tensile Strength, psi | | 8,400 psi | D638 |
| Elongation at Break, % | | 7 % | |
| Tensile modulus, psi | | 0.29 x $10^6$ psi | |
| Flexural Strength, psi | | 11,200 psi | D790 |
| Flexural Modulus, psi | | 0.34 x $10^6$ psi | |
| Compressive Strength, psi | | 18,700 psi | D695 |
| Compressive Yield Strength, psi | | 9,600 psi | |
| Heat Deflection Temperature | | 151°F | D648 |
| Dielectric Constant * | | 3.48 | D150 |
| Dissipation Factor * | | 0.015 | |
| * At 1 Megahertz | | | |

## PACKAGING WEIGHTS

| | Quart Kit | Gallon Kit | Pail Kit | Drum Kit |
|---|---|---|---|---|
| ES6315 A | 3 lb. | 12 lb. | 60 lb. | 550 lb. |
| ES6315 B | 3 lb. | 12 lb. | 60 lb. | 550 lb. |
| Kit | 6 lb. | 24 lb. | 120 lb. | 1100 lb. |



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