BOND XTC
WIRE INSULATIONS AND COATINGS
DATASHEET

Bond XTC is a high-temperature thermoplastic polyamide bondcoat.

BONDING INSTRUCTIONS

Box XTC will soften and reflow with the application of heat during or after coil winding. It is typically applied as an overcoat over a Polyurethane or Polyester type insulation basecoat to make a bondable magnet wire. Such a wire will bond to itself when heat softens the overcoat on adjacent turns and the bondcoat flows together. Upon cooling the overcoat will harden, which locks the turns in place. Bonding, if wire coated with Bond XTC should be considered reversible in that a return to high temperature will once again soften the coating.

If coils are post-baked at 180°C (356°F) for one hour, then the Bond XTC will maintain its room temperature strength until at least 140°C (284°F) and still have greater than 50% of its room temperature strength at 190°C (374°F). Post-baking of Bond XTC at lower temperatures for longer periods of time (such as 4 hours at 170°C (338°F)) is possible to optimize bond strength and coil outgassing properties. Of course, service testing should be performed to verify the adequacy of the winding constructions, the bonding process and outgassing properties.

Post-bake cycle above refers to time at temperature. Ovens of forced hot air stations may require additional time or higher temperatures to bring the wire ip to the required bonding temperature.

Resistance heating of the windings by application of current is and efficient method of bonding wire temperatures

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