



## 3 BI-SEAL<sup>®</sup>

### High Voltage Insulating Tape with Liner

Technical Data Sheet

October 2017

#### Description and Features

**3 BI-SEAL 20<sup>®</sup>** (20 mil) and **3 BI-SEAL 30<sup>®</sup>** (30 mil) are polyethylene and ethylene propylene rubber based tapes possessing superior electrical, chemical, mechanical and thermal properties. 3 Bi-Seal fuses quickly, yielding a void-free, electrically stable build up. For insulating and jacketing of splices on power cables from 600 volts through 69kV and for building stress cones and jacketing of terminations on power cable from 35kV. Meets ASTM-D-4388, HH-I-553C standard.

- Self-amalgamating
- Superior corona and ozone resistance
- UV resistance
- Excellent moisture, corrosion and chemical resistance
- Excellent temperature characteristics

Materials	Backing	Adhesive	Color	Standard Sizes
	EPR Rubber	None	Black	Width x Length 19 mm x 9,1 m (0.75 in. x 30 ft.) 25 mm x 9,1 m (1 in. x 30 ft.) Other sizes available upon request

Technical Properties	Characteristic	Typical Value		Test Method
		3 BI-SEAL 20	3 BI-SEAL 30	
	Thickness, (mm)	0,51	0,76	ASTM D 4325
	Breaking strength (MPa)	5,0	5,0	ASTM D 412
	Elongation at break (%)	770	800	ASTM D 412
	Fusion (2,0 mm max.)	No Flag	No Flag	ASTM D 4325
	Heat Resistance (°C)	130	130	ASTM D 4325
	Operating Temperature			
	Continuous (°C)	90	90	ASTM D 4325
	Emergency Overload (°C)	130	130	ASTM D 4325
	Water Absorption (%)	0,02	0,02	ASTM D 570
	Ozone Resistance (visual)	Pass	Pass	ASTM D 4325
	UV Resistance (visual)	Pass	Pass	ASTM D 4325
	Dielectric Strength (kV/mm)	38	37	ASTM D 149
	Dissipation Factor			
	24h @ 23°C	0,003	0,003	ASTM D 4325
	168h @ 70°C	0,008	0,008	ASTM D 4325
	Dielectric Constant:			
	24h @ 23°C	2,7	2,7	ASTM D 4325
	168h @ 70°C	2,9	2,9	ASTM D 4325
	Volume Resistivity (Ω.cm)			
	96h @ 23°C and 50% RH	1x10 <sup>16</sup>	1x10 <sup>16</sup>	ASTM D 257
	96h @ 23°C and 96% RH	1x 10 <sup>13</sup>	1x 10 <sup>13</sup>	ASTM D 257

**Recommended Uses** For insulating and jacketing of splices on power cable through 69,000 volts and for building stress cones and jacketing of terminations on power cable through 35,000 volts. Use for insulating electronic circuits and sealing service entrance connections and conduit coupling.

**Storage** In original packaging, placed in horizontal position under cover and temperature between 5°C and 35 °C.

**Shelf Life** 60 months from date of manufacture.

Data in table represents average test results and are not to be used for specification purpose. The product users should make their own tests to determine the products' suitability for the intended use.

**LIMITED WARRANTY:** Plymouth warrants that its Product will substantially conform to that products written specifications for a period of one (1) year from the date of shipment, (Unless provided otherwise). Plymouth makes no warranty to the distributor, its customers, or the product's end user for the products merchantability and/or suitability for his/its intended use or purpose, and buyer shall assume all risks associated therewith. Provided that the product is proved to be defective within the terms described above, and provided buyer shall have first complied with all return policies of Plymouth, PLYMOUTH'S SOLE OBLIGATION AND BUYER'S EXCLUSIVE REMEDY UNDER THIS PRODUCT WARRANTY SHALL BE TO REPLACE SUCH QUANTITY OF THE PRODUCT AS IS PROVED TO BE DEFECTIVE WITHIN THE TIME PERIOD SPECIFIED ABOVE. EXCEPT AS EXPRESSLY SET FORTH HEREIN, PLYMOUTH MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED. In no event shall Plymouth be liable for collateral, consequential, indirect or incidental damages arising out of, or connected in any way with the supply of products. (rev. 1/2017-2019)