Nylene® BX3WQ662X

TECHNICAL DATASHEET

TDS Ref # 832 Reviewed: 9/15/2022

DESCRIPTION

- Nylene® BX3WQ662X is a medium viscosity, heat stabilized, nylon 6 universal wire jacketing resin offering excellent performance through the range of THHN, THWN, and TFFN constructions.
- This product possesses higher extractables for a balance of performance properties.
- Shields PVC from impact which causes cracking and breaking and general deterioration of the product.
- Improves the temperature rating of the wire, has good cut through resistance, and high resistance to abrasion.
- Dried to less than 0.15% moisture, with packaging options of 1,800 lb. gaylord boxes or 55 lb. foil-lined, vacuum sealed bags.

PROPERTIES

MANUFACTURING SPECIFICATIONS	Unit	Minimum	Maximum	Plant Test Method
Relative Viscosity (1)	Unitless, FAV	42.9	51.6	Calculated
Relative Viscosity (2)	Unitless, Rv	2.55	2.75	2-3
Copper Content	(ppm)	35.0		2-7
Methanol Extractables	(%)	4.00	6.00	2-2
Moisture Content	(%)		0.12	1-3

NOTES

1 – 90% Formic Acid @ 25°C
2 – 96% Sulphuric Acid @ 20°C

PROCESSING CONSIDERATIONS: PA 6 WIRE & CABLE

		°F	°C
Extruder	Zone 1	460 -475	238 246
	Zone 2	475 -490	246 - 254
	Zone 3	485 - 500	252 - 260
	Zone 4	485 - 500	252 - 260
	Zone 5	495 - 510	257 - 265
Delivery	Flange	500 - 515	260 - 268
	Crosshead	500 - 515	260 - 268
	Die	500 - 515	260 - 268

Melt Temperature:
Nylene PA6 melts at 430°F (221°C), actual melt temperatures of 480-540°F (249-282°C) are permissible, depending on residence time.

Drying Temperature :
150-180 °F (65-82°C) for 2-4 hours, Nylene® PA6 should be dried to less than 0.15% moisture for optimum performance. Drying longer than 4 hours or at higher temperatures may cause oxidation of the polymer or remove essential volatiles.

CHARACTERISTICS

Resin Type: Nylon 6

Product Characteristics:
Unreinforced, Internally Lubricated, Heat Stabilized, Natural

EXTRUSION PROCESSING

Wire & Cable

FEATURES

- Oil & Gas Resistance
- Abrasion Resistance
- Consistent Quality
- Cut-through Resistance
- Impact Resistance
- Toughness

MARKETS USED

- Building Wire
- Energy Cable

APPLICATIONS

- Appliance Wire
- Automotive (hydrocarbon resistance)
- Cable Tray 1/0-1000 AWG [53.5mm²-507mm²]
- Entrance Cable 1-4/0 [42.4mm²-107mm²]
- NM-B/UF-B 14 AWG to 2 AWG
- Pumps and Motors

APPROVALS

- UL 83: UL listed and meeting the requirements of UL 83 for wire jacketing.
- QMTT2.E237217

DISCLAIMER

The data set forth herein has been carefully compiled by Nylene in our laboratories. Values shown are typical properties and not specifications. Since processing variables will affect properties, the reproducibility of our data in a customer's testing facility is not guaranteed. There is no warranty of any kind, either expressed or implied, applicable to the use of this information, and the user assumes all risk and

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