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Customized Solutions for Diverse Applications

0103-212b BK

Non-halogen flame retardant compound

Description

Macromeric® 0103-212bBK is a black, UV resistant, non-halogen flame retardant RoHS polyolefin compound. It is designed for use in a wide variety of jacketing applications including wire and cable and tube bundles. This compound has superior fire performance; including slow flame propagation, self-extinguishing characteristics, and low smoke production. Macromeric® 0103-212bBK should be extruded with a screw configuration designed to optimize process conditions and throughput.

Properties	Conditions	Typical Value	Unit	Test Method
Physical				
Specific Gravity	at 23°C	1.47	g/cm3	ASTM D792
Melt Index	190°C, 21.6 kg	16.0	g/10-min.	ASTM D1238
Tear Strength	at 23°C	320	lbf/in.	ASTM D470
Low Temperature Brittleness	3 minutes in methanol	-35	°C	ASTM D746-07
Mechanical				
Tensile Strength	at break	2000	psi	ASTM D638
	Air, 7-days at 121°C	105	% Retention	
	Oil, 4-hours at 70°C	85	% Retention	
Elongation	at break	200	%	ASTM D638
	Air, 7-days at 121°C	85	% Retention	
	Oil, 4-hours at 70°C	95	% Retention	
UL 1581, Section 481	Air, 150-days at 97°C	90	Rating, °C	UL 1581
UL1277 Deformation	100°C, 2000-g	5	% deformation	UL1277/UL2556
Flexural Modulus	1% secant	27,000	psi	ASTM D790
Hardness				
Durometer	1-second	95	Shore A	ASTM D2240
Flammability				
Ash Content	Procedure B	43.5	%	ASTM D5630
LOI	23°C	35	%	ASTM D-2863
NBS Smoke Density	Smoldering Mode	225	Dm(corr.)	ASTM E-662
	Flaming Mode	30	Dm(corr.)	ASTM E-662

The technical information contained herein is, to the best of our knowledge, believed to be accurate. However, Säco Polymers makes no guarantee or warranty, and does not assume any liability, with respect to the accuracy or completeness of such information. Suitability of material for a specific final end use is the sole responsibility of the user. The data contained herein are typical properties only and are not be used as specifications. (rev. 11/22/2010)

Processing

Macromeric® 0103-212bBK can be processed very easily on a wide range of commercially available extrusion equipment. It can withstand extrusion temperatures up to 425°F, but recommended temperatures are much lower. A typical temperature profile would be:

Processing Conditions	
Zone 1:	300 - 320°F
Zone 2:	330 - 350°F
Zone 3:	350 - 370°F
Zone 4:	350 - 370°F
Head:	340 - 360°F
Die:	370 - 390°F
Melt Temperature:	360 - 380°F

It is recommended that Macromeric® 0103-212bBK is pre-dried in a heated desiccant system prior to processing. Typical drying conditions are 140°F for 6-8 hours.

Storage

Saco Polymers recommends that Macromeric® 0103-212bBK be stored in an ambient temperature range (40 to 80 degrees Fahrenheit), tightly sealed in its original container and away from moisture and high humidity.

Packaging

0103-212bBK is packaged at 2,000-pounds in foil-lined 41 ft³ octagon gaylords (39.5 inches in height).



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