



0103-212a BK

Black Non-halogen flame retardant compound

Description

Macromeric® 0103-212a BK is a black, non-halogen, Magnesium Hydroxide containing, RoHS flame retardant polyolefin compound. It is designed for use in a wide variety of jacketing applications including wire and cable. This compound has superior fire performance; including slow flame propagation, self-extinguishing characteristics, and low smoke production. Macromeric® 0103-212a BK should be extruded with a screw configuration designed to optimize process conditions and throughput. This extrusion compound meets, or exceeds, several industry jacketing specifications, including UL 1277 tray cable.

Properties	Conditions	Typical Value	Unit	Test Method
Physical				
Specific Gravity	at 23°C	1.51	g/cm ³	ASTM D792
Melt Index	190°C, 21.6 kg	3.0	g/10-min.	ASTM D1238
Low Temperature Brittleness	3 minutes in methanol	-34	°C	ASTM D746-07
Mechanical				
Tensile Strength	at break	1900	psi	ASTM D638
	Air, 14-days at 121°C	105	% Retention	
	Air, 7-days at 136°C	105	% Retention	
	Oil, 4-hours at 70°C	85	% Retention	
Elongation	at break	175	psi	ASTM D638
	Air, 14-days at 121°C	95	% Retention	
	Air, 7-days at 136°C	90	% Retention	
	Oil, 4-hours at 70°C	105	% Retention	
UL 1581, Section 481	Air, 150-days at 97°C	90	Rating, °C	UL 1581
Deformation Test	2000-gram load, 121°C	2.5	% deformation	UL 1277
Flexural Modulus	1% secant	33,000	psi	ASTM D790
Hardness				
Durometer	1-second	93	Shore A	ASTM D2240
	1-second	59	Shore D	ASTM D2240
Flammability				
LOI	23°C	38	%	ASTM D-2863

Processing

Macromeric® 0103-212a BK 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® 0103-212a BK is pre-dried in a heated desiccant system prior to processing. As processes vary widely, please call for specific requirements for your application(s).

Storage

Padanaplast USA recommends that Macromeric® 0103-212a BK 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

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



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