

# Macromeric® 0103-212 BK

Polyolefin

Saco Polymers

## Message:

Black Non-halogen flame retardant compound

Macromeric® 0103-212 BK 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. This compound has superior fire performance; including slow flame propagation, self-extinguishing characteristics, and low smoke production. Macromeric® 0103-212 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.

General Information			
Additive	Flame Retardant		
Features	Flame Retardant		
	Halogen Free		
	Low Smoke Emission		
	Self Extinguishing		
Uses	Cable Jacketing		
	Wire & Cable Applications		
Agency Ratings	UL 1277		
RoHS Compliance	RoHS Compliant		
Appearance	Black		
Forms	Pellets		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Specific Gravity <sup>1</sup>	1.52	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/21.6 kg)	1.0	g/10 min	ASTM D1238
Ash Content - Procedure B	44	%	ASTM D5630
Retention of Tensile Strain at Break - 720 hr Weather-o-meter	85	%	ASTM D638
Retention of Tensile Strength - 720 hr Weather-o-meter	110	%	ASTM D638
Head Temperature	171 to 182	°C	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec	92		
Shore D, 1 sec	55		
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Break)	11.4	MPa	ASTM D638
Tensile Elongation (Break)	200	%	ASTM D638

Flexural Modulus - 1% Secant	262	MPa	ASTM D790
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air			ASTM D573
121°C, 336 hr	30	%	
136°C, 168 hr	25	%	
Change in Ultimate Elongation in Air			ASTM D573
121°C, 336 hr	-40	%	
136°C, 168 hr	-40	%	
Change in Tensile Strength (70°C, 4 hr, in Oil)	-25	%	ASTM D471
Change in Ultimate Elongation (70°C, 4 hr, in Oil)	0.0	%	ASTM D471
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature <sup>2</sup>	-30.0	°C	ASTM D746
Flammability	Nominal Value	Unit	Test Method
Oxygen Index <sup>3</sup>	37	%	ASTM D2863
Extrusion	Nominal Value	Unit	
Cylinder Zone 1 Temp.	160 to 171	°C	
Cylinder Zone 2 Temp.	166 to 177	°C	
Cylinder Zone 3 Temp.	177 to 188	°C	
Cylinder Zone 4 Temp.	177 to 188	°C	
Melt Temperature	182 to 193	°C	
Die Temperature	188 to 199	°C	
NOTE			
1.	23°C		
2.	3 minutes in methanol		
3.	23°C		

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