

# Macromeric® 0103-212a NT

Polyolefin  
Saco Polymers

Message:

Non-halogen flame retardant compound

Macromeric ® 0103-212a NT is a natural, 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 ® 0103-212a NT 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		
	Good UV Resistance		
	Halogen Free		
	Low Smoke Emission		
	Self Extinguishing		
Uses	Cable Jacketing		
	Wire & Cable Applications		
Agency Ratings	UL 1277		
RoHS Compliance	RoHS Compliant		
Appearance	Natural Color		
Forms	Pellets		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Specific Gravity <sup>1</sup>	1.51	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/21.6 kg)	3.0	g/10 min	ASTM D1238
Ash Content - Procedure B	44	%	ASTM D5630
Deformation - 2000-gram load (121°C)	5.4	%	UL 1277
Smoke Density			ASTM E662
Flaming Mode	30	Ds	
Smoldering Mode	230	Ds	
Head Temperature	171 to 182	°C	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A, 1 sec)	90		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Break)	13.8	MPa	ASTM D638
Tensile Elongation (Break)	200	%	ASTM D638

Flexural Modulus - 1% Secant	172	MPa	ASTM D790
Elastomers	Nominal Value	Unit	Test Method
Tear Strength (23°C)	56.0	kN/m	ASTM D470
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air			ASTM D638
121°C, 336 hr	10	%	
136°C, 168 hr	10	%	
Change in Ultimate Elongation in Air			ASTM D638
121°C, 336 hr	-25	%	
136°C, 168 hr	-25	%	
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature <sup>2</sup>	-30.0	°C	ASTM D746
UL Temperature Rating <sup>3</sup>	90	°C	UL 1581
Flammability	Nominal Value	Unit	Test Method
Oxygen Index <sup>4</sup>	35	%	ASTM D2863
Extrusion	Nominal Value	Unit	
Cylinder Zone 1 Temp.	149 to 160	°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.	Test Conditions: Air, 150-days at 97°C		
4.	23°C		

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