AXELERON™ CC B-3487 NT CPD

High Density Polyethylene Cellular Insulation Compound The Dow Chemical Company

Message:

AXELERON™CC B- 3487 NT is a high-density polyethylene hole material, used for the foam/skin layer of insulation materials for telephone lines and other hole structures. The material contains a chemical foaming agent, which can obtain a 50% foaming amount when temperature controlled extrusion processing is adopted. AXELERON™CC B- 3487 NT has a unique antioxidant system and has excellent long-term insulation aging resistance in oil-filled cable applications.

It is recommended to use this material for products that work in hot environments. Under the condition of adopting the correct extrusion processing specifications for commercial extruders, the product should be able to meet the strict requirements for insulation aging resistance in Telcordia GR 421 CORE and ICEA S-84-608 specifications. AXELERON™CC B- 3487 NT has excellent extrusion processing characteristics, and the insulation products prepared using this product have excellent mechanical and electrical properties.

Additive Antioxidation Uses Thin wall insulation Telephone insulator Wire and cable applications Foam Communication Equipment Agency Ratings ICEA S-84-608 Forms Particle Processing Method Extrusion Physical Nominal Value Unit Test Method Specific Gravity 1 0.945 g/cm² ASTM D1238 Mechanical Nominal Value Unit Test Method Specific Gravity 1 0.80 g/10 min ASTM D1238 Mechanical Nominal Value Unit Test Method Tensile Strength 22.1 MPa ASTM D638 Tensile Elongation (Break) 700 % ASTM D638 Thermal Nominal Value Unit Test Method Thermal Stress Crack Resistance > 96 hr ASTM D638 Thermal Stress Crack Resistance > 96 hr ASTM D2951 Oxidation Induction Time 2 (220°C) 47 min ASTM D2951 Oxidation Induction Time 2 (220°C) 47 min ASTM D3895 Electrical Nominal Value Unit Test Method Volume Resistivity (23°C) > 1.0E+15 ohms-cm ASTM D257 Dielectric Constant 3 (1 MHz) 2.34	General Information			
Telephone insulator Wire and cable applications Foam Communication Equipment Agency Ratings ICEA S-84-608 Forms Processing Method Processing Method Extrusion Physical Nominal Value Unit Test Method Specific Gravity 0.89 0.89 0.80 0.80 0.80 0.80 0.80 0.80	Additive	Antioxidation		
Wire and cable applications Foam Communication Equipment Foam Communication Equipment Foam Fo	Uses	Thin wall insulation		
Foam Communication Equipment Agency Ratings ICEA S-84-608 Forms Particle Processing Method Extrusion Physical Nominal Value Unit Test Method Specific Gravity 1 0.945 0.80 g/10 min ASTM D792 Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) kg) Nominal Value Unit Test Method ASTM D792 Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) kg) Nominal Value Unit Test Method Tensile Strength 2.2.1 MPa ASTM D638 Tensile Elongation (Break) 700 % ASTM D638 Tensile Elongation (Break) Nominal Value Unit Test Method Thermal Thermal Stress Crack Resistance > 96 hr ASTM D638 Thermal Stress Crack Resistance > 96 hr ASTM D2951 Oxidation Induction Time 2 (220°C) 47 min ASTM D2951 Oxidation Induction Time 2 (220°C) > 1.0E+15 Dielectric Constant 3 (1 MHz) Dissipation Factor 4 (1 MHz) 3.0E-4		Telephone insulator		
Agency Ratings ICEA S-84-608 Forms Particle Processing Method Extrusion Physical Nominal Value Unit Test Method Specific Gravity 1 0.945 g/cm³ ASTM D792 Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) 0.80 g/10 min ASTM D1238 Mechanical Nominal Value Unit Test Method Tensile Strength 22.1 MPa ASTM D638 Tensile Elongation (Break) 700 % ASTM D638 Tensile Elongation (Break) 700 % ASTM D638 Thermal Stress Crack Resistance > 96 hr ASTM D638 Thermal Stress Crack Resistance > 96 hr ASTM D2951 Oxidation Induction Time 2 (220°C) 47 min ASTM D3895 Electrical Nominal Value Unit Test Method Volume Resistivity (23°C) > 1.0E+15 ohms cm ASTM D257 Dielectric Constant 3 (1 MHz) 2.34 ASTM D1331 Dissipation Factor 4 (1 MHz) 3.0E-4		Wire and cable applications		
Agency Ratings ICEA S-84-608 Forms Particle Processing Method Extrusion Physical Nominal Value Unit Test Method Specific Gravity 1 0.945 g/cm³ ASTM D792 Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) 0.80 g/10 min ASTM D1238 Mechanical Nominal Value Unit Test Method Tensile Strength 22.1 MPa ASTM D638 Tensile Elongation (Break) 700 % ASTM D638 Thermal Nominal Value Unit Test Method Thermal Stress Crack Resistance > 96 hr ASTM D638 Electrical Nominal Value Unit Test Method Test Method Thermal Stress Crack Resistance > 96 hr ASTM D638 Electrical Nominal Value Unit Test Method Volume Resistivity (23°C) 47 min ASTM D395 Electrical Nominal Value Unit Test Method Volume Resistivity (23°C) > 1.0E+15 ohms·cm ASTM D257 Dielectric Constant 3 (1 MHz) 2.34 Dissipation Factor 4 (1 MHz) 3.0E-4 ASTM D1531		Foam		
Forms Particle Processing Method Extrusion Physical Nominal Value Unit Test Method Specific Gravity 1 0.945 g/cm³ ASTM D792 Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) 0.80 g/10 min ASTM D1238 Mechanical Nominal Value Unit Test Method Tensile Strength 22.1 MPa ASTM D638 Tensile Elongation (Break) 700 % ASTM D638 Thermal Nominal Value Unit Test Method Thermal Stress Crack Resistance > 96 hr ASTM D251 Oxidation Induction Time 2 (220°C) 47 min ASTM D3895 Electrical Nominal Value Unit Test Method Volume Resistivity (23°C) > 1.0E+15 ohms·cm ASTM D257 Dielectric Constant 3 (1 MHz) 3.0E-4 ASTM D1531		Communication Equipment		
Forms Particle Processing Method Extrusion Physical Nominal Value Unit Test Method Specific Gravity 1 0.945 g/cm³ ASTM D792 Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) 0.80 g/10 min ASTM D1238 Mechanical Nominal Value Unit Test Method Tensile Strength 22.1 MPa ASTM D638 Tensile Elongation (Break) 700 % ASTM D638 Thermal Nominal Value Unit Test Method Thermal Stress Crack Resistance > 96 hr ASTM D251 Oxidation Induction Time 2 (220°C) 47 min ASTM D3895 Electrical Nominal Value Unit Test Method Volume Resistivity (23°C) > 1.0E+15 ohms·cm ASTM D257 Dielectric Constant 3 (1 MHz) 3.0E-4 ASTM D1531	Agency Ratings	ICEA S-84-608		
Processing Method Extrusion Nominal Value Unit Test Method Specific Gravity 1 0.945 Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) 0.80 Mechanical Nominal Value Unit Test Method Test Method Test Method Tensile Strength 22.1 MPa ASTM D638 Thermal Nominal Value Unit Test Method ASTM D638 Thermal Nominal Value Unit Test Method ASTM D638 Thermal Nominal Value Unit Test Method ASTM D638 Thermal Stress Crack Resistance > 96 hr ASTM D2951 Oxidation Induction Time 2 (220°C) 47 min ASTM D3895 Electrical Nominal Value Unit Test Method Volume Resistivity (23°C) > 1.0E+15 ohms·cm ASTM D257 Dielectric Constant 3 (1 MHz) 3.0E-4 ASTM D1531				
PhysicalNominal ValueUnitTest MethodSpecific Gravity 10.945g/cm²ASTM D792Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)80g/10 minASTM D1238MechanicalNominal ValueUnitTest MethodTensile Strength22.1MPaASTM D638Tensile Elongation (Break)700%ASTM D638ThermalNominal ValueUnitTest MethodThermal Stress Crack Resistance> 96hrASTM D2951Oxidation Induction Time 2 (220°C)47minASTM D3895ElectricalNominal ValueUnitTest MethodVolume Resistivity (23°C)> 1.0E+15ohms·cmASTM D257Dielectric Constant 3 (1 MHz)2.34Units·cmASTM D1531Dissipation Factor 4 (1 MHz)3.0E-4ASTM D1531				
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)0.80g/10 minASTM D1238MechanicalNominal ValueUnitTest MethodTensile Strength22.1MPaASTM D638Tensile Elongation (Break)700%ASTM D638ThermalNominal ValueUnitTest MethodThermal Stress Crack Resistance> 96hrASTM D2951Oxidation Induction Time 2 (220°C)47minASTM D3895ElectricalNominal ValueUnitTest MethodVolume Resistivity (23°C)> 1.0E+15ohms·cmASTM D257Dielectric Constant 3 (1 MHz)2.34ASTM D1531Dissipation Factor 4 (1 MHz)3.0E-4ASTM D1531	-	Nominal Value	Unit	Test Method
kg)0.80g/10 minASTM D1238MechanicalNominal ValueUnitTest MethodTensile Strength22.1MPaASTM D638Tensile Elongation (Break)700%ASTM D638ThermalNominal ValueUnitTest MethodThermal Stress Crack Resistance> 96hrASTM D2951Oxidation Induction Time 2 (220°C)47minASTM D3895ElectricalNominal ValueUnitTest MethodVolume Resistivity (23°C)> 1.0E+15ohms·cmASTM D257Dielectric Constant 3 (1 MHz)2.34ASTM D1531Dissipation Factor 4 (1 MHz)3.0E-4ASTM D1531	Specific Gravity ¹	0.945	g/cm³	ASTM D792
MechanicalNominal ValueUnitTest MethodTensile Strength22.1MPaASTM D638Tensile Elongation (Break)700%ASTM D638ThermalNominal ValueUnitTest MethodThermal Stress Crack Resistance> 96hrASTM D2951Oxidation Induction Time 2 (220°C)47minASTM D3895ElectricalNominal ValueUnitTest MethodVolume Resistivity (23°C)> 1.0E+15ohms·cmASTM D257Dielectric Constant 3 (1 MHz)2.34STM D1531Dissipation Factor 4 (1 MHz)3.0E-4ASTM D1531	Melt Mass-Flow Rate (MFR) (190°C/2.16			
Tensile Strength 22.1 MPa ASTM D638 Tensile Elongation (Break) 700 % ASTM D638 Thermal Nominal Value Unit Test Method Thermal Stress Crack Resistance > 96 hr ASTM D2951 Oxidation Induction Time 2 (220°C) 47 min ASTM D3895 Electrical Nominal Value Unit Test Method Volume Resistivity (23°C) > 1.0E+15 ohms·cm ASTM D257 Dielectric Constant 3 (1 MHz) 2.34 ASTM D1531 Dissipation Factor 4 (1 MHz) 3.0E-4 ASTM D1531	kg)	0.80	g/10 min	ASTM D1238
Tensile Elongation (Break) 700 % ASTM D638 Thermal Nominal Value Unit Test Method Thermal Stress Crack Resistance > 96 hr ASTM D2951 Oxidation Induction Time 2 (220°C) 47 min ASTM D3895 Electrical Nominal Value Unit Test Method Volume Resistivity (23°C) > 1.0E+15 ohms·cm ASTM D257 Dielectric Constant 3 (1 MHz) 2.34 ASTM D1531 Dissipation Factor 4 (1 MHz) 3.0E-4 ASTM D1531	Mechanical	Nominal Value	Unit	Test Method
Thermal Stress Crack Resistance > 96 hr ASTM D2951 Oxidation Induction Time 2 (220°C) 47 min ASTM D3895 Electrical Nominal Value Unit Test Method Volume Resistivity (23°C) > 1.0E+15 ohms·cm ASTM D257 Dielectric Constant 3 (1 MHz) 2.34 ASTM D1531 Dissipation Factor 4 (1 MHz) 3.0E-4 ASTM D1531	Tensile Strength	22.1	MPa	ASTM D638
Thermal Stress Crack Resistance > 96 hr ASTM D2951 Oxidation Induction Time ² (220°C) 47 min ASTM D3895 Electrical Nominal Value Unit Test Method Volume Resistivity (23°C) > 1.0E+15 ohms·cm ASTM D257 Dielectric Constant ³ (1 MHz) 2.34 ASTM D1531 Dissipation Factor ⁴ (1 MHz) 3.0E-4 ASTM D1531	Tensile Elongation (Break)	700	%	ASTM D638
Oxidation Induction Time 2 (220°C)47minASTM D3895ElectricalNominal ValueUnitTest MethodVolume Resistivity (23°C)> 1.0E+15ohms·cmASTM D257Dielectric Constant 3 (1 MHz)2.34ASTM D1531Dissipation Factor 4 (1 MHz)3.0E-4ASTM D1531	Thermal	Nominal Value	Unit	Test Method
ElectricalNominal ValueUnitTest MethodVolume Resistivity (23°C)> 1.0E+15ohms·cmASTM D257Dielectric Constant 3 (1 MHz)2.34ASTM D1531Dissipation Factor 4 (1 MHz)3.0E-4ASTM D1531	Thermal Stress Crack Resistance	> 96	hr	ASTM D2951
Volume Resistivity (23°C)> 1.0E+15ohms·cmASTM D257Dielectric Constant ³ (1 MHz)2.34ASTM D1531Dissipation Factor ⁴ (1 MHz)3.0E-4ASTM D1531	Oxidation Induction Time ² (220°C)	47	min	ASTM D3895
Dielectric Constant ³ (1 MHz) 2.34 ASTM D1531 Dissipation Factor ⁴ (1 MHz) 3.0E-4 ASTM D1531	Electrical	Nominal Value	Unit	Test Method
Dissipation Factor ⁴ (1 MHz) 3.0E-4 ASTM D1531	Volume Resistivity (23°C)	> 1.0E+15	ohms·cm	ASTM D257
	Dielectric Constant ³ (1 MHz)	2.34		ASTM D1531
Education to the control of the cont	Dissipation Factor ⁴ (1 MHz)	3.0E-4		ASTM D1531
Extrusion instructions	Extrusion instructions			

加工技巧AXELERON™ CC B-3487 NT 提供非常出色的多孔挤出加工稳定性和卓越的多孔绝缘质量.化学发泡多孔绝缘板的挤出是一个精细的过程,要求准确控制挤塑机温度以实现最佳效果.典型的高速生产线结合了计算机控制系统,以保持即时直径和即时容量测量处于预期水平.使用正确设计的聚乙烯测量或双跨阻隔螺杆可实现多孔挤出的最佳效果.典型挤塑机桶的温度为:进料区:340°F (170°C)过渡区:370°F (185°C)测量区:400°F (205°C)十字头和模具 400°F (205°C)需要将测量和十字头区域温度调节到具有 ± 0.5°C 的公差,以便为给定生产线上的给定产品/操作条件提供预期的多孔膨胀率.建议在每个生产线上为每种绝缘产品制定最优化的挤出条件并进行标准化.对于发泡/外层挤出,建议使用略小于成品绝缘直径(-0.02mm/-0.001英寸)的双锥形短合模面聚乙烯模具.需要 >266°F (>130°C)

的导线预热以提供良好的绝缘拉伸伸长率性能.较低的预热温度起初效果良好,但老化绝缘伸长率性能不佳.

NOTE	
1.	Solid
2.	Aluminum plate
3.	Solid
4.	Solid

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533 Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China



Page 2