

Halar® 558

Ethylene Chlorotrifluoroethylene Copolymer

Solvay Specialty Polymers

Message:

Halar558 fluoropolymer resin grades are used for foam extrusion products, including main insulating materials, coaxial cable cores, cross-laying nets, fire alarm cables, sheaths and foam pipes. Like other Halar resin grades, this grade resin can adapt to a wide range of use temperatures from low temperature to 150 °C, and has excellent chemical resistance to various acids, alkalis, organic solvents, etc. Cables containing Halar 558 materials meet the fire performance requirements of NFPA 90A (Air Conditioning and Ventilation System Standard). In order to meet these requirements, materials must pass NFPA 262 flame propagation and wire and cable smoke standard test methods. In addition, even Halar 558 resin thin-walled parts have excellent mechanical properties. The resin melts at 242 °C, and its polymer chain is mainly composed of ethylene and chlorotrifluoroethylene alternately arranged in 1:1 units. Halar ECTFE can be machined with most standard metalworking machine tools. Due to the low thermal conductivity of the material, it may cause heat accumulation. It is recommended to use a coolant to prevent the parts from softening during processing.

General Information			
Additive	Nucleating agent		
	Foaming agent		
	Processing aid		
Features	Nucleated		
	Solvent resistance		
	Good chemical resistance		
	alkali resistance		
	acid resistance		
Uses	Cable sheath		
	Electronic insulation		
	Pipe fittings		
	Foam		
Agency Ratings	NFPA Code 90a		
	UL 444		
Forms	Particle		
Processing Method	Foam extrusion molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.68	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR)	15 - 20	g/10 min	ASTM D3275
Water Absorption (Equilibrium)	< 0.10	%	ASTM D570
Thermal	Nominal Value	Unit	Test Method
Melting Temperature	242	°C	DSC
Flammability	Nominal Value	Unit	Test Method
Flame Rating	V-0		UL 94

Oxygen Index (1.60 mm)	52	%	ASTM D2863
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Additional Information

色母粒 - 与Halar树脂所有其它牌号一样,Halar 558可以很容易地用市售色母粒着色.当进行内层绝缘着色时,强烈建议用量不要超过重量的1%,因为色母粒会影响内层绝缘的电性能. 安全操作和使用不建议在高于572°F (300°C)的温度下加工Halar 558含氟聚合物,会发生迅速热降解.当发生降解时, Halar 558会释放盐酸(HCL)和氢氟酸(HF)这些即使在较低浓度下也会具有刺激性,腐蚀性和毒性的气体.请参阅塑料工业学会出版的塑料行业氟聚合树脂安全操作指南.. 为避免吸入分解后产品,建议正确利用局部排风罩或柔性管道,排出挤塑烟雾.如果处置不当,Halar 558可能会释放有毒有害化学物质.

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	243	°C
Cylinder Zone 2 Temp.	249	°C
Cylinder Zone 3 Temp.	263	°C
Cylinder Zone 4 Temp.	280	°C
Flange temperature		
Falan 2	252	°C
Flange 1	252	°C
Top temperature	243	°C
Cross nose temperature	254	°C
Die fixing plate temperature	246	°C
Die Temperature	274	°C

Extrusion instructions

Halar558树脂是完全预混的含氟聚合物,含成核剂,在挤塑过程中分解的化学发泡剂以及加工助剂.有没有无需向系统注入氮气.可以通过调整熔融温度,头部压力和急冷速度等工艺条件,将部件内部的密闭气泡空隙按照0-70 %的范围进行调节 .如果需要降低发泡剂来减少气泡数量,可以在Halar558中混合Halar 500. Halar 558已经通过各种不同的标准螺杆挤塑设备进行了加工,包括标准氟聚物的加工.可带或不带菠萝混合头;压缩比:3:1; 喂料/传送/压缩段螺杆深度分别为 12/5/9.具体应避免使用快速传输螺杆(1-2个螺槽深度)和的Maddox 混合机头. 设备/机械建议: -挤出头尺寸: 1~2.5英寸 -挤出机L/D:24:1 -筛网:40/60 -直角挤塑机头类型:固定或可调 -锥长:0.25英寸~0.75英寸 -线速度:最高1700fpm -模具:加压 -吹胀比:1.75~2.75

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