

AEI TP-0870

Polyethylene
AEI Compounds Limited

Message:

Flexible, low-smoke, halogen-free, flame retardant thermoplastic compound for cable insulation and sheathing.

This is a very flexible flame-retardant low-smoke thermoplastic compound. The compound meets the requirements of limited toxic and corrosive fume emission, being designed to meet the general requirements of BS7655 Section 6.1 type LTS 1.

TP-0870 is available in the following versions:

TP-0870N (natural colour)

TP-0870B (coloured black)

TP-0870NU (with a non-staining UV stabiliser added)

TP-0870BU (carbon black added to give UV stability)

General Information			
Additive	Flame retardancy		
Features	Low smoke		
	Good flexibility		
	Halogen-free		
	Flame retardancy		
Uses	Flame Retardant Insulation		
	Flame Retardant Jacketing		
	Cable sheath		
	Wire and cable applications		
Agency Ratings	BS 7655:6.1 Type LTS 1		
	EC 1907/2006 (REACH)		
RoHS Compliance	RoHS compliance		
Forms	Particle		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Density	1.46	g/cm ³	BS 2782 620A
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			
Shaw A	96		
Shaw D	56		
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress	11.5	MPa	IEC 60811-1-1
Tensile Strain			
Fracture	270	%	IEC 60811-1-1
Fracture, -30°C ¹	60	%	IEC 60811-1-4

Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength			IEC 60811-1-2
70°C, 168 hr, in water	-25	%	IEC 60811-1-2
100°C, 168 hr	-5.0	%	IEC 60811-1-2
Change in Tensile Strain at Break			IEC 60811-1-2
70°C, 168 hr, in water	-12	%	IEC 60811-1-2
100°C, 168 hr	-12	%	IEC 60811-1-2
Thermal	Nominal Value	Unit	Test Method
Deformation (80°C)	30	%	IEC 60811-3-1
Cold shock (-30°C)	pass		IEC 60811-1-4
Cold Bend (-30°C)	pass		IEC 60811-1-4
Temperature index	270	°C	ISO 4589-3
Tear Strength	10	N/mm	BS 6469
Head Temperature	160	°C	
Flammability	Nominal Value	Unit	Test Method
Oxygen Index	32	%	ISO 4589-2
Extrusion	Nominal Value	Unit	
Cylinder Zone 1 Temp.	120	°C	
Cylinder Zone 2 Temp.	130	°C	
Cylinder Zone 3 Temp.	140	°C	
Cylinder Zone 4 Temp.	150	°C	
Melt Temperature	< 170	°C	
Die Temperature	160	°C	
Extrusion instructions			
An extruder with an L/D ratio (length/diameter) of 15-24 and an extruder screw with a compression ratio 1.5:1 or less are recommended.			
NOTE			
1.	pass		

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