AEI TP-0831

Polyethylene

AEI Compounds Limited

Message:

Thermoplastic, low smoke, halogen free, flame retardant compound for cable insulation and sheathing.
This is a flame retardant, low smoke, thermoplastic compound, which has been specially developed to meet the requirements of limited toxic and corrosive fume emission, having good moisture resistance and hot pressure performance.
TP-0831 has been specially developed to comply with the requirements of BS7655 Section 6 for types LTS1,2,3 and 4; EN 50290-2-27 for type HM2 and HD 604 for type HM4.
TP-0831 is available in the following versions:
TP-0831N (natural colour)
TP-0831B (coloured black)
TP-0831NU (with a non-staining UV stabiliser added)
TP-0831BU (carbon black added to give UV stability)

General Information			
Additive	Flame retardancy		
Features	Low smoke Moisture resistance Halogen-free Flame retardancy		
Uses	Flame Retardant Insulation Flame Retardant Jacketing Cable sheath Wire and cable applications		
Agency Ratings	BS 7655 LTS1-2-3-4 EC 1907/2006 (REACH) EN 50290-2-27 HD 604		
RoHS Compliance	RoHS compliance		
Forms	Particle		
Processing Method	Extrusion		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.50	g/cm³	BS 2782 620A
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			
Shaw A	90		
Shaw D	40		
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress	13.5	MPa	IEC 60811-1-1

Tensile Strain			
Fracture	190	%	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
100°C, 168 hr	-10	%	IEC 60811-1-2
110°C, 168 hr	-16	%	IEC 60811-1-2
Change in Tensile Strain at Break			IEC 60811-1-2
100°C, 168 hr	15	%	IEC 60811-1-2
110°C, 168 hr	5.0	%	IEC 60811-1-2
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deformation			IEC 60811-3-1
90°C	25	%	IEC 60811-3-1
100°C	30	%	IEC 60811-3-1
Cold shock (-30°C)	pass		IEC 60811-1-4
Cold bending (-30°C)	pass		IEC 60811-1-4
Heat-resistant stress cracking (80°C)	pass		Internal method
Temperature index	270	°C	ISO 4589-3
Halogen Acid Gas Evolution		%	IEC 60754-1
Tear Strength	8	N/mm	BS 6469
Head Temperature	160	°C	
Flammability	**Nominal Value**	**Unit**	**Test Method**
Oxygen Index	30	%	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

Recommended distributors for this material

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