AEI TP536

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.
TP536 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.
TP536 is available in the following versions:
TP536N (natural colour)
TP536B (coloured black)
TP536NU (with a non-staining UV stabiliser added)
TP536BU (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
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	11	g/10 min	Internal method
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			
Shaw A	90		
Shaw D	40		

Mechanical	Nominal Value	Unit	Test Method
Tensile Stress	16.0	MPa	IEC 60811-1-1
Tensile Strain			
Fracture	160	%	IEC 60811-1-1
Fracture, -30°C [1]	60	%	IEC 60811-1-4
Aging	**Nominal Value**	**Unit**	**Test Method**
Change in Tensile Strength (100°C, 168 hr)	18	%	IEC 60811-1-2
Change in Tensile Strain at Break (100°C, 168 hr)	-15	%	IEC 60811-1-2
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deformation (90°C)	25	%	IEC 60811-3-1
Cold bending (-30°C)	pass		IEC 60811-1-4
Temperature index	280	°C	ISO 4589-3
Insulation Constant - Ki			IEC 60502
20°C	5.4E+9	ohms·cm	IEC 60502
90°C	5.7E+7	ohms·cm	IEC 60502
Conduction rate-of gases	10.7	μS/cm	EN 50267-2-3
Corrosive gases in flue gas-pH	4.30		EN 50267-2-3
Smoke-3m cube test	pass		EN 61034
Halogen Acid Gas Evolution		%	IEC 60754-1
Tear Strength	6.5	N/mm	BS 6469
Head Temperature	160	°C	
Flammability	**Nominal Value**	**Unit**	**Test Method**
Oxygen Index	35	%	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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