AEI TP543C

Polyethylene

AEI Compounds Limited

Message:

Thermoplastic, low-smoke, halogen-free, flame retardant compound for cable insulation and sheathing.
A flame-retardant low-smoke thermoplastic compound which has been specially developed to meet the requirements of limited toxic/corrosive fume emission, and having high fire retardance as indicated by a high oxygen index.
TP543C 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. Cables made with TP543C have complied with IEC 332 part 1 and 3 fire tests.
TP543C is available in the following versions:
TP543CN (natural colour)
TP543CB (coloured black)
TP543CNU (with a non-staining UV stabiliser added)
TP543CBU (carbon black added to give UV

General Information			
Additive	Flame retardancy		
Features	Low smoke 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	1.54	g/cm³	BS 2782 620A
Melt Mass-Flow Rate (MFR) (150°C/21.6 kg)	7.0	g/10 min	Internal method
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress	13.0	MPa	IEC 60811-1-1
Tensile Strain			
Fracture	170	%	IEC 60811-1-1
Fracture, -30°C [1]	50	%	IEC 60811-1-4

Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength (100°C, 168 hr)	12	%	IEC 60811-1-2
Change in Tensile Strain at Break (100°C, 168 hr)	-12	%	IEC 60811-1-2
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deformation (90°C)	35	%	IEC 60811-3-1
Cold bending (-30°C)	pass		IEC 60811-1-4
Temperature index	> 300	°C	ISO 4589-3
Insulation Constant - Ki			IEC 60502
20°C	7.7E+9	ohms·cm	IEC 60502
90°C	5.7E+7	ohms·cm	IEC 60502
Halogen Acid Gas Evolution		%	IEC 60754-1
Tear Strength	6	N/mm	BS 6469
Head Temperature	160	°C	
Flammability	**Nominal Value**	**Unit**	**Test Method**
Oxygen Index	41	%	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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