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TECHNICAL DATA SHEET

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Kimfill 4151

Crack Resistant Halogen Free Flame Retardant

Product Description

Kimfill 4151 is a crack resistant thermoplastic, low smoke zero halogen (LSZH) flame retardant, natural jacketing compound combining with excellent extrusion properties.
It is based on the novel technology, Kimfill containing inorganic filler and a novel char-forming additive which confer flame retardancy with very limited smoke generation. It can be used in areas sensitive to smoke or corrosive and toxic combustion products. For most cable constructions, Kimfill 4151 has sufficient flame retardancy to satisfy single wire vertical burning tests.

Kimfill 4151 meets the applicable requirements below using sound commercial extrusion practice and testing procedures:

- IEC 60502-1 ST8

General			
Material Status	• Commercial: Active		
Availability	• Middle East, Europe		
Additive	• Unspecified Additive		
Features	• Clean/High Purity	• Good Process ability	
Uses	• Communication Wire Jacketing	• Electronic Cable Jacketing	• Security Cable Jacketing
Appearance	• Natural color		
Forms	• Pellets		
Packaging	• 25 Kg sacks		
Processing Method	• Extrusion		

Physical	Nominal Value	Unit	Test Method
Density	1.40±0.05	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/5 kg)	0.5 ±0.2 g/10 min		ISO 1133

Mechanical	Nominal Value	Unit	Test Method
Tensile Stress (Break)	14.0	MPa	IEC 60811-1-1
Tensile Strain (Break)	170	%	IEC 60811-1-1
Crack Resistance	Pass	-	Internal method

Hardness	Nominal Value	Unit	Test Method
Hardness(ShoreD,10sec)	50	-	ISO 868

Ageing	Nominal Value	Unit	Test Method
Retention of mechanical properties 100°C, After Ageing168 hr	>75	%	IEC 60811-1-2

Extrusion

As a guide the following temperature profile is recommended

Zone 1	Zone 2	Zone 3	Zone 4	Head	Die
110	135	140	160	170	170

Flammability properties	Nominal Value	Unit	Test Method
Oxygen Index	34	%	ISO 4589-2
Smoke Density (light transition)	80	%	IEC 61034
Halogen Acid Gas Evaluation	<0.5	%	IEC 60754-1

Note

- Test results have been achieved in lab condition. Miss handling may give different result and sometimes outside of the standard
- The specifications given are the guidelines only.
- Above compound is suitable to run on different machines; however some adjustments may be required on individual machine.
- The customers are advised to check the quality, prior to commercial use. There is no guarantee and/or warrantee what so ever, after processing