



KLJ POLYMERS & CHEMICAL LIMITED

KLJ-ZHFR COMPOUND

Thermoplastic Zero Halogen Flame Retardant Compound for cable grades.

Description :- KLJ-ZHFR 323 is based on thermoplastic compound containing a flame retardant system and self extinguishable properties. Compound does not emit halogenic acid and produce very low gases, and low smoke under fire condition.

Physical Properties :-

Sr. No	Properties	Test Method	Unit.	Specification BS 7655 sec 6.1	Typical value
01	Density	ASTM-D-792	GM/CC		1.45±0.02
02	Hardness	ASTM-D-2240	Shore-D		47±2
03	Tensile Strength 50(mm/min.) Min.	IEC-811-1-1	Mpa	10	12
04	% elongation at break. Min	IEC-811-1-1	%	100	220
05	After Aging in Air at 100°C for 168 Hrs.				
	1. T.S	IEC-811-1-2	Mpa	10	
	Variation in T.S		%	±30	+20
	2. E.B.	IEC-811-1-2	%	100	125
	Variation in E.B.		%	±30	-18
06	Water Immersion test at 70°C for 168 Hrs.	BS-6469-99.1			
	1. Variation in T.S.		%	±30	-10
	2. Variation in E.B.		%	±30	-7
07	Tear Strength .(Min)	BS-6469-99.1	N/mm	5	9
08	Oxygen Index (Min.)	ASTM D-2863	%	30	32.8%
09	Smoke Density rating (Max.)	ASTM D-2863	%	20	10%
10	Pressure Test at 80°C max indentation	IEC 811-3-1	%	50	35%
11	Acid gas emission test (% HCL Emission) (Max)	IEC-60754 Part 1	%	0.5	0.30%

Processing :-

KLJ-ZHFR - 323 compound is processed on standard extruders for thermoplastics equipped with low compression and low shear screw, with 22– 25 L/D ratio of the extruder. Screw compression ratio is 1.15 – 1.2:1. There should not be any stagnant area in the die and X-head.

Recommended DDR is 2:1, or less than 2.

The recommended temp. profile:-

Zone1	Zone-2	Zone 3	Zone 4	flange	head & Die
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120°C	130°C	140°C	150°C	150°C	165±5°C
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prior to extrusion KLJ ZHFR 323 is to be dried at 60°C for 2-3 hrs in drying oven

Coloring:

KLJ-ZHFR 323 is colorable compound. EVA or polyolefinic base masterbatch can be added.

Storage: The product should be stored in cool & dry conditions. Avoid direct exposure to sunlight.

Packaging:

KLJ-ZHFR 323 is available in the form of free flowing pellets and supplied in 25 kg bags.

Safety :

KLJ-ZHFR 323 is not classified as dangerous material

The product is supplied in the form of pellets and can be handled with commercially available equipment. It may generate dust & fines during transport. All instruments should properly grounded.

Disclaimer :

The specifications given are the guidelines only. Above compound is suitable to run on different machines, however some adjustments may be needed on individual machine. There is no guarantee and or warrantee what so ever. The customers are advised to check the grade prior to commercial use. All properties are tested as per ASTM/IS/IEC standards as mentioned above using extrusion suitability for their application, machine. Any data may change without prior information and do not constitute the agreed quality of our product.