

## Non Halogen Flame retardant Insulation Compound for Railway Rolling Stock Electric Cables

### Description

DYM-8712NFR is a thermosetting, non-halogen, low smoke and flame retardant sheathing compound for railway rolling stock electric cables based on Polyolefin.(TR WL1, WL2)

### Typical Physical · Electrical Properties

Test items	Test method	Unit	Value
Specific Gravity at 23°C	ASTM D 792	-	1.34
Hardness	ASTM D 2240	Shore A.	72
Tensile Strength at break	IEC 60811-1-1	MPa	10
Elongation at break		%	650
After ageing (150°C, 96 hrs)	IEC 60811-1-2		
Tensile Strength (Retention)		%	>90
Elongation (Retention)		%	>90
Hot set test (200°C, 15min, 20N/cm <sup>2</sup> )	IEC 60811-2-1		
Elongation under load		%	80
Permanent elongation		%	5
Oil resistance (ASTM #2 Oil, 70°C, 4 hrs)	IEC 60811-2-1		
Tensile Strength (Retention)		%	>80
Elongation (Retention)		%	>80
Oxygen index	ASTM D 2863	%	26
Smoke density	ASTM E 662	Ds max	110
Halogen acid gas evolution	IEC 60754-1	%	0
Corrosivity of gases	IEC 60754-2	pH	5.0
Conductivity		µs/cm	38
Volume resistivity at 23 °C	ASTM D 257	Ω · cm	>1.0×10 E15

\* Data should not be used for specification work.

### Processing Techniques

Recommending standard extrusion temperature profiles of DYM-8712NFR are as followings ; Unit: °C

Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Adapter	Head	Die
85	90	95	97	100	105	110	110

It is recommended that this product can be used conventional rubber extruder. (L/D is 12~15:1 and C/R is 1.3~2.0:1) Specific recommendation for processing conditions can be determined only when the application and type of equipment are known. We recommend hopper drying at 60°C for 4 hours to remove moisture before extrusion.

### Color & Appearance

This compound is a basic black color, but colorable, and is ribbon form.

### Packing

Form : 600kg Cardboard Box (Inner Al bag packing)

### Handling

To ensure health and safety, Material Safety Data Sheets(MSDS) is available on request.

### Storage

Should be stored at room temperatures between 10~30°C. Recommended maximum storage period in a dry and clean place is 6months unopened and in original packaging after the manufacture.

