

## **megolon IN700**

### Insulation Grade Compound

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#### DESCRIPTION

MEGOLON® IN700 is a thermoplastic, halogen free, fire retardant cable compound which possess excellent insulation properties.

#### APPLICATIONS

- Spain: UNE 211002
- Germany: DIN VDE 0207 part 23, type HJ2
- CENELEC: EN 50363-7, types T16 and T17. **megolon IN700** also meets the requirements of EN 50363-3 for a general purpose PVC insulation compound

#### TECHNICAL PROPERTIES

Primary Properties	Unit	Nominal Value	Test Method
Tensile strength	MPa	13	IEC 60811-1-1
Elongation at break	%	195	IEC 60811-1-1
Oxygen Index	%	33	ISO 4589-2
Density	g/cc	1.49	ASTM D-792
Melt Flow Rate (21.6 kg, 150°C)	g/10 mins.	5.5	ISO 1133

#### Mechanical Properties

Tear strength	N/mm	9.5	BS 6469:99.1
Tensile strength after 10 days at 100°C	MPa	12	IEC 60811-1-2
Variation	%	-8	
Elongation at break after 10 days at 100°C	%	130	IEC 60811-1-2
Variation	%	-33	
Tensile strength after 7 days at 80°C	MPa	12.5	IEC 60811-1-2
Variation	%	-4	
Elongation at break after 7 days at 80°C	%	160	IEC 60811-1-2
Variation	%	-18	

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Thermomechanical Properties	Unit	Nominal Value	Test Method
Hot pressure at 90°C	%	20	IEC 60811-3-1

## Fire and Smoke Test Properties

Halogen acid gas evolution	%	ZERO	IEC 60754-1
Corrosivity of gases			IEC 60754-2
pH		5.0	
Conductivity	µS/cm	10	
Smoke density – Flaming mode	Ds max	51	ASTM E-662
Time to maximum	minutes	14	
Smoke density – Non-flaming mode	Ds max	184	ASTM E-662
Time to maximum	minutes	13	
Toxicity index		1.1	NES 713

## Electrical Properties

Dielectric constant at 10MHz		3.4	ASTM D-150
Dissipation factor at 10MHz		0.014	ASTM D-150
Insulation resistance at 20°C			BS 6469:99.2
Initial value	ohm.cm	$5 \times 10^{14}$	
After 12 hours immersion in water	ohm.cm	$3 \times 10^{14}$	
Insulation resistance after 2 hours			BS 6469:99.2
Immersion in water at 70°C	ohm.cm	$1 \times 10^{12}$	
Immersion in water at 80°C	ohm.cm	$6 \times 10^{11}$	
Immersion in water at 90°C	ohm.cm	$4 \times 10^{11}$	
Immersion in salt solution for 10 days at 60°C under continuous 220V electrical stress		PASS	UNE 21031-2 Clause 2.5

## Other Properties

Hardness	Shore D	55	ASTM D-2240
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