

## **megolon IN200**

### Insulation Grade Compound

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#### DESCRIPTION

MEGOLON™ IN200 is a thermoplastic, halogen free, fire retardant cable insulation compound suitable for use up to 1kV.

#### APPLICATIONS

- CENELEC: EN 50363-7, types TI6 and TI7. **megolon IN200** also meets the requirements of EN 50363-3 for a general purpose PVC insulation compound
- Germany: DIN VDE 0207 part 23, type HJ2

#### TECHNICAL PROPERTIES

Primary Properties	Unit	Nominal Value	Test Method
Tensile strength	MPa	15	IEC 60811-1-1
Elongation at break	%	170	IEC 60811-1-1
Oxygen Index	%	35	ISO 4589-2
Density	g/cc	1.53	ASTM D-792
Melt Flow Rate (21.6 kg, 150°C)	g/10 mins.	4.5	ISO 1133

#### Mechanical Properties

Tear strength	N/mm	5	BS 6469:99.1
Tensile strength after 7 days at 100°C	MPa	19	IEC 60811-1-2
Variation	%	+27	
Elongation at break after 7 days at 100°C	%	120	IEC 60811-1-2
Variation	%	-30	

#### Thermomechanical Properties

Hot pressure at 80°C	%	20	IEC 60811-3-1
Hot deformation at 90°C	%	2	BS 6469:99.1
Cold elongation at -25°C	%	60	IEC 60811-1-4
Cold impact at -25°C	%	PASS	IEC 60811-1-4

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## Fire and Smoke Test Properties

	Unit	Nominal Value	Test Method
Flammability temperature index	°C	270	ISO 4589-3
Halogen acid gas evolution	%	ZERO	IEC 60754-1
Corrosivity of gases			IEC 60754-2
pH		6.0	
Conductivity	µS/cm	14	
Smoke density – Flaming mode	Ds max	41	ASTM E-662
Time to maximum	minutes	12	
Smoke density – Non-flaming mode	Ds max	390	ASTM E-662
Time to maximum	minutes	11	
Toxicity index		2	NES 713

## Oil Resistance Properties

Medium	Temperature	Duration	Tensile Strength (MPa)	Variation (%)	Elongation at Break (%)	Variation (%)	Volume Swell (%)
IRM 902	23°C	7 days	14	-7	145	-15	+1
IRM 902	70°C	4 hours	14	-7	170	0	+1
IRM 903	23°C	7 days	12	-20	145	-15	+20

## Electrical Properties

	Unit	Nominal Value	Test Method
Dielectric constant at 50Hz		4.0	ASTM D-150
Dissipation factor at 50Hz		0.02	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	$2 \times 10^{13}$	
Insulation resistance after 2 hours in water at 70°C	ohm.cm	$7 \times 10^{11}$	BS 6469:99.2
Insulation resistance constant (K value) after 2 hours in water at 70°C	Mohm.km	2.5	BS 6469:99.2

## Other Properties

	Unit	Nominal Value	Test Method
Mooney viscosity (1+4 mins, 140°C)		45	ASTM D-1646
Hardness	Shore D	55	ASTM D-2240
Ozone resistance		PASS	ASTM D-470

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