

## TECHNICAL DATA SHEET

### MEGOLON® S552

MEGOLON® S552 is a thermoplastic, halogen free, fire retardant cable sheathing compound with enhanced resistance to degradation by hot water, formulated specifically to meet the requirements of UK specification BS 7655:6.1 type LTS4. It also meets many other national and international specifications, some of which are detailed below.

#### APPLICATIONS

- UK: BS 7655:6.1 type LTS4. Also meets the requirements of BS 7655:6.1 types LTS1, LTS2, LTS3 and BS EN 50363-4-1 type TM1 for a general purpose PVC sheathing compound
- Germany: DIN VDE 0207, part 24, type HM4. Also meets the requirements of DIN VDE 0207, part 24, type HM2
- Italy: CEI 20-11 types M1 and M9
- Australasia: AS/NZS 3808 types HFS-90-TP and HFS-110-TP
- International: IEC 60502-1 type ST8 and IEC 60092-359 type SHF1

#### TECHNICAL PROPERTIES

Primary Properties	Unit	Nominal Value	Test Method
Tensile Strength	Mpa	14	IEC 60811-501
Elongation at break	%	200	IEC 60811-501
Oxygen Index	%	36	ISO 4589-2
Density	g/cc	1.51	ASTM D-792
Melt Flow Rate (21.6 kg, 150°C)	g/10 mins	5.5	ISO 1133
Mechanical Properties			
Tear Strength	N/mm	8	BS 6469:99.1
Tensile strength after 7 days at 110°C	Mpa	17	IEC 60811-401
Variation	%	+20	
Elongation at break after 7 days at 110°C	%	170	IEC 60811-401
Variation	%	-15	
Tensile strength after 7 days at 100°C	Mpa	15	IEC 60811-401
Variation	%	+5	
Elongation at break after 7 days at 100°C	%	170	IEC 60811-401
Variation	%	-15	
Thermomechanical Properties			
Hot pressure at 90°C	%	35	IEC 60811-508
Cold elongation at -30°C	%	60	IEC 60811-505
Cold impact at -30°C	No Cracks	PASS	IEC 60811-506

## Fire and Smoke Test Properties

Flammability temperature index	°C	280	ISO 4589-3
Halogen acid gas evolution	%	ZERO	IEC 60754-1
Corrosivity of gases			IEC 60754-2
pH		5.7	
Conductivity	µS/mm	4	
Smoke density – Flaming mode	Ds max	60	ASTM E-662
Time to maximum	minutes	12	
Smoke density – Non-flaming mode	Ds max	140	ASTM E-662
Time to maximum	minutes	12	
Toxicity index		0.6	DEF STAN 02-713

## Oil Resistance Properties

Medium	Temperature	Duration	Tensile Strength (Mpa)	Variation (%)	Elongation at Break (%)	Variation (%)
IRM 902	23°C	7 days	14.5	+5	220	+10
IRM 902	70°C	4 hours	13.5	-5	210	+5
SAE 20	70°C	4 hours	13.5	-5	180	-10
IRM 903	23°C	7 days	12.5	-10	160	-20

## Electrical Properties

	Unit	Nominal Value	Test Method
Insulation resistance at 20°C			BS 6469:99.2
After 12 hours immersion in water	ohm.cm	$1 \times 10^{14}$	
Insulation resistance after 2 hours			BS 6469:99.2
Immersion in water at 70°C	ohm.cm	$9 \times 10^{11}$	
Immersion in water at 80°C	ohm.cm	$4 \times 10^{11}$	
Immersion in water at 90°C	ohm.cm	$2 \times 10^{11}$	

## Other Properties

Hardness	Shore D	59	ASTM D-2240
Water immersion – 7 days at 70°C			BS 6469:99.1
Variation of tensile strength	%	-12	
Variation of elongation at break	%	-5	

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