

# AFLEX® SPECIAL NBR ELASTOMER INSULATION AND SHEATHING

Many FirstFlex cables use a special Aflex® insulation and sheathing system which is an exclusive blend of Acrylo-Nitrile Butadiene Rubber (NBR). This special insulation ensures excellent dielectric strength.

The special insulation permits continuous temperatures up to 90°C without any property loss so that you may use smaller cross sectional Special NBR cables than either 60°C rubber or 75°C PVC insulated cables.

Aflex® Special NBR combines exceptional toughness and durability with outstanding flexibility, and remarkable resistance to oil, heat, abrasion, ozone and most solvents and is UV stabilised.

Aflex® Special NBR does not support combustion and conforms to or exceeds most International Standards.

## PROPERTIES OF AFLEX® SPECIAL NBR VS. DIFFERENT STANDARD' REQUIREMENTS

Property under Test	Unit	BS 638 Part 4:1970	AS 3191/3116	IEC 245-6/1980	VDE 0250	Aflex Special NBR
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### MECHANICAL PROPERTIES

#### 1. AS DELIVERED

Tensile strength		Kg/cm <sup>2</sup>	110	70	120	166
Elongation at break	min.	%	250	250	300	500

#### 2. AFTER AGEING – 10 X 24 HOURS AT 90°C

Tensile Strength	min.	Not specified	Not specified	Not specified	Not specified	156
Percentage of value for unaged sample	min.	%	85	50	85	94
Elongation at break	min.	%	200	Not specified	Not specified	475
Percentage of value for unaged sample	min.	%	75	50	75	95

#### 3. OIL RESISTANCE – AFTER IMMERSION FOR 24 HOURS IN MINERAL OIL AT 100°C

Tensile Strength	min.	Not specified	Not specified	Not specified	Not specified	151
Percentage of value for unaged sample	min.	%	60	60	60	90
Elongation at break	min.	%	Not specified	Not specified	Not specified	360
Percentage of value for unaged sample	min.	%	60	60	60	72

### PERMISSIBLE OPERATING TEMPERATURE

Maximum conductor temp.	°C	90	-	60	90
Minimum ambient temp.	°C	Not specified	Not specified	Not specified	- 40

### SURFACE RESISTANCE AT 20°C

	Not specified	Not specified	10 x 10 <sup>9</sup>	4.6 x 10 <sup>12</sup>
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### FLAME RETARDANT – FLAME NOT TO PROCEED MORE THAN

mm	-	-	250	Self extinguishing
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