

N18 is a silicone elastomer film that is characterized by its electrical characteristics. It exhibits good thermal behavior.

N18 is also available with fiber glass reinforcement what leads to very good mechanical properties. These film types possesses excellent mechanical stability along with good puncture proof strength.

N18 can be order with or without adhesive on one side.

N18 is available in thickness from 0.125mm until 0.5mm.

Properties	Unit	N18	Test Method
Standard thickness	mm	0.225	-
Color	-	Green	Visual
<b>Thermal Properties</b>			
Thermal resistance $R_{th}$	K/W	0.35	-
Thermal impedance $R_{ti}$	$^{\circ}\text{Cmm}^2/\text{W}$	125	ASTM D5740
Thermal conductivity $\lambda$	W/mK	1.8	ASTM D5470
<b>Electrical Properties</b>			
Breakdown voltage $U_{d;ac}$	kV	8	ASTM D149
Dielectric breakdown $E_{d;ac}$	kV/mm	26	-
Volume resistivity	$\Omega\text{m}$	$2.5 \times 10^{11}$	-
Dielectric constant $\epsilon_r$	1	2.9	ASTM D150
<b>Mechanical Properties</b>			
Tensile strength	N/mm <sup>2</sup>	3	ASTM D412
Hardness	Shore A	65-70	ASTM D2240
Elongation	%	75	ASTM D412
<b>Physical Properties</b>			
Standard thicknesses	mm	0.225	-
Flame rating	UL94	V0	-
Density	g/cm <sup>3</sup>	2.29	-
Application temperature	$^{\circ}\text{C}$	-60 up to +250	-

Ordering example:

## N18-0225-A1-FG

A1= with adhesive on one side, FG= with fibre glass

05/19

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