

# HIGH THERMAL CONDUCTIVE FILM

# N65

N65 is a non-silicone electrical isolating thermal interface material that delivers an exceptionally high level of thermal conductivity of 6.5W/mK. N65 is highly suited for rugged and extremely demanding applications as well as silicone sensitive applications. Its inherent softness removes micro air voids between contact surfaces at the interface. The cold-flow action of N65 mounted to a cold wall or chassis, via a spring, metal clip or clip, delivers reliable and high thermal performance whilst also guaranteeing electrical isolation

Properties	Unit	N65	Test Method
Base material	-	Ceramic-filled polyurethane	Visual
Standard thickness	mm	0.2	-
Color	-	Light blue	Visual
<b>Thermal Properties</b>			
Thermal resistance $R_{th}$	K/W	0.082	-
Thermal impedance $R_{ti}$	$^{\circ}\text{Cmm}^2/\text{W}$	32.9	-
	$\text{Kin}^2/\text{W}$	0.05	-
Thermal conductivity $\lambda$	W/mK	6.5	-
<b>Electrical Properties</b>			
Breakdown voltage $U_{d,ac}$	KV	4	-
Dielectric breakdown $E_{d,ac}$	KV/mm	25	-
Volume resistivity	$\Omega\text{m}$	$2.0 \times 10^{11}$	-
Dielectric loss factor $\tan \delta$	1	$13.7 \times 10^{-3}$	-
Dielectric constant $\epsilon_r$	1	3.1	-
<b>Mechanical Properties</b>			
Tensile strength	N/mm <sup>2</sup>	2.0	-
Hardness	Shore A	70 - 85	-
Elongation	%	150	-
<b>Physical Properties</b>			
Possible thicknesses	mm	0.1 - 0.3	-
Flame rating	UL94	V0	-
Density	g/cm <sup>3</sup>	1.46	-
Application temperature	$^{\circ}\text{C}$	-40 to +125	-

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Order example:

## N65-0200-A0

**N = Electric insulating film - 65 = 6.5W/mK - 0200 = 0.20mm - A0 = No adhesive**