

L37-3S Thermal Conductive Pad

Version 2.180220

Thermal Conductive Pad

L37-3S is an ultra-soft silicone gap filler which has exceptional conformation to surface, a low thermal impedance and high dielectric breakdown voltage. L37-3S can be supplied in various formats ranging from standard sheets to custom die-cut pads in various thicknesses.

Features

Very good thermal conductivity Soft and high compressibility Natural tack Easy to assemble Good insulator Great reworkability

Applications

Electronic components: IC, CPU, MOS LED, M/B, P/S, Heat Sink LCD TV, Notebook PC, PC Telecom Device, Wireless Hub, etc. DDR II Module, DVD Applications, Hand-set applications, etc.

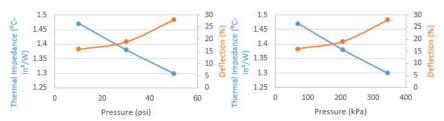
Properties

REACH Compliant

🗸 ROHS Compliant

| Property | L37-3S | Unit | Tolerance | Test Method | |
|---------------------------------|----------------|----------|-----------|-------------|--|
| Colour | Light yellow | - | - | Visual | |
| Thickness | 0.3 - 20 | mm | - | ASTM D374 | |
| THICKNESS | 0.0118 - 0.787 | inch | - | ASTM D374 | |
| Thermal Conductivity | 1.95 | W/mK | ±0.19 | ASTM D5470 | |
| Flammability Rating | V-0 | - | - | UL 94 | |
| Dielectric Breakdown Voltage | >13 | kV/mm | ±1.3 | ASTM D149 | |
| Weight Loss | <1 | % | - | ASTM E595 | |
| Density | 2.21 | g/cm³ | ±0.2 | ASTM D792 | |
| Working Temperature | -40 to 200 | °C | - | - | |
| Volume Resistance | >1012 | Ohm-cm | - | ASTM D257 | |
| Elongation | 350 | % | ±0.2 | ASTM D412 | |
| Tensile Strength | 8 | Kgf/cm² | ±5 | ASTM D412 | |
| Standard Shape | Sheet 320x320 | mm | - | - | |
| Hardness | 55 | Shore 00 | ±10 | ASTM D2240 | |

Thermal Impedance vs Pressure vs Deflection



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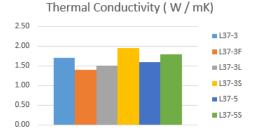


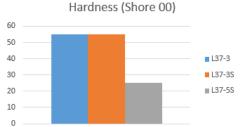
Standard Weights & Dimensional Tolerance

| | Thickness | | | | | ١ | Weights (g |) | | | | |
|------|-----------|-------|--------|--------|--------|--------|------------|--------|--------|--------|--------|----------|
| | (mm) | 0.30 | 0.50 | 0.80 | 1.00 | 1.50 | 2.00 | 2.50 | 3.00 | 3.50 | 4.00 | 4.50 |
| Size | 100x100 | 6.63 | 11.05 | 17.68 | 22.10 | 33.15 | 44.20 | 55.25 | 66.30 | 77.35 | 88.40 | 99.45 |
| | 150x150 | 14.92 | 24.86 | 39.78 | 49.73 | 74.59 | 99.45 | 124.31 | 149.18 | 174.04 | 198.90 | 223.76 |
| | 300x300 | 59.67 | 99.45 | 159.12 | 198.90 | 298.35 | 397.80 | 497.25 | 596.70 | 696.15 | 795.60 | 895.05 |
| | 320x320 | 67.89 | 113.15 | 181.04 | 226.30 | 339.46 | 452.61 | 565.76 | 678.91 | 792.06 | 905.22 | 1,018.37 |

| | Thickness (mm) | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | 7.50 | 8.00 | 8.50 | 9.00 | 9.50 | 10.00 |
|------|-------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 100x100 | 110.50 | 121.55 | 132.60 | 143.65 | 154.70 | 165.75 | 176.80 | 187.85 | 198.90 | 209.95 | 221.00 |
| Size | 150x150 | 248.63 | 273.49 | 298.35 | 323.21 | 348.08 | 372.94 | 397.80 | 422.66 | 447.53 | 472.39 | 497.25 |
| | 300x300 | 994.50 | 1,093.95 | 1,193.40 | 1,292.85 | 1,392.30 | 1,491.75 | 1,591.20 | 1,690.65 | 1,790.10 | 1,889.55 | 1,989.00 |
| | 320x320 | 1,131.52 | 1,244.67 | 1,357.82 | 1,470.98 | 1,584.13 | 1,697.28 | 1,810.43 | 1,923.58 | 2,036.74 | 2,149.89 | 2,263.04 |

Data





| | Har | dness (| Shore | A) | | |
|-----|-----|---------|-------|----|--------|--|
| 100 | | | | | | |
| 80 | | | | | | |
| 60 | | | | | L37-3F | |
| 40 | | | | | L37-3L | |
| | | | | | L37-5 | |
| 20 | | | | | | |
| 0 | | | | | | |

| | Thickness (mm) | Tolerance (mm) | | | | |
|-------------------------|----------------|----------------|--|--|--|--|
| | 0.3 | ±0.03 | | | | |
| | 0.5 | ±0.05 | | | | |
| | 0.8 | ±0.08 | | | | |
| | 1.0 | ±0.1 | | | | |
| | 1.2 | ±0.12 | | | | |
| Die-Cut | 1.5 | ±0.15 | | | | |
| Thickness Tolerances | 2.0 | ±0.2 | | | | |
| | 2.5 - 3.5 | ±0.25 | | | | |
| | 4.0 - 4.5 | ±0.3 | | | | |
| | 5.0 | ±0.35 | | | | |
| | 6.0 - 8.0 | ±0.4 | | | | |
| | 9.0 | ±0.45 | | | | |
| | 10.0 | ±0.5 | | | | |
| | >10.0 | ±0.5 | | | | |

* Data for design engineer guidance only. Observed performance varies in application. Engineers are reminded to test the material in application.

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