TECHNICAL DATA SHEET

TSI12-1000



High performance silicone interface for thermal management

Reference: 04 TSI12100 00

Product profile

Release liner: White PE liner siliconized on one side

Material: Silicone with fillers

Release liner: Transparent PET liner siliconized on one

side (50 µm)

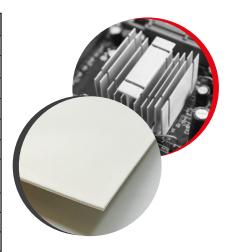


With its unique and highly innovative construction, TSI12-1000 product is designed for the following applications: thermal management, heat-sink thermal interface, LED lighting thermal management.



Technical properties

| | Test method | Value |
|----------------------------------|-------------------|------------------------|
| Thickness - without liner (µm) | - | 1000 |
| Density | - | 2.3 |
| Hardness, Bulk Rubber (Shore 00) | ASTM D2240 at 30s | 50 |
| Young modulus (kPa) | ASTM D575 | 140 |
| Thermal conductivity (W/m.K) | ASTM D5470 | 2 |
| Heat Capacity (J/g.K) (at 20°C) | ASTM E1269 | 1.0 |
| Electric breakdown voltage (V) | ASTM D 149 | AC: 11000 DC: 21000 |
| Volume resistivity (Ω.cm) | ASTM D257 | 10 ¹¹ |
| Flammability | UL 94 | V0 |
| Continuous use temperature (°C) | Internal | - 60 to 200 |



Product features

- European product (technology and manufacturing)
- Silicone oil free (no leakage / low outgazing)
- · Wide web process, designed for large volume
- · Tacky surface on both sides

Storage

Store in dry conditions between 10 °C and 35 °C in its original packaging. Use within 12 months after delivery.

| Compression ratio | Compression force (N/6,4cm²) | |
|-------------------|------------------------------|--|
| 10 % | 12 | |
| 20 % | 44 | |
| 30 % | 74 | |
| 40 % | 91 | |
| 50 % | 115 | |
| Sustain 50 % | 46 | |

- Test method: ASTM D575-91 for reference
- Specimen diameter: 28.6mm
- Platen diameter: 28.6 mm
- Compression velocity: 5 mm /min
- Sustain 50 %: Remaining force after 1min at 50 % compression ratio

This document does not constitute a specification. The information provided in this document is given in good faith, according to the tests made in our laboratory. The values given are typical values and may vary according to application conditions. They are given for information only and do not constitute a warranty. It is the responsibility of the purchaser to determine prior to use the suitability of this material in its application. Revised: January 09th 2025



TECHNICAL DATA SHEET

TSI12-2000



High performance silicone interface for thermal management

Reference: 04 TSI12200 00

Product profile

Release liner: White PE liner siliconized on one side

Material: Silicone with fillers

Release liner: Transparent PET liner siliconized on one

side (50 µm)

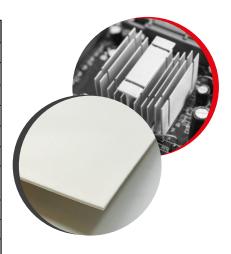


With its unique and highly innovative construction, TSI12-2000 product is designed for the following applications: thermal management, heat-sink thermal interface, LED lighting thermal management.



Technical properties

| | Test method | Value |
|----------------------------------|-------------------|------------------------|
| Thickness - without liner (µm) | - | 2000 |
| Density | - | 2.3 |
| Hardness, Bulk Rubber (Shore 00) | ASTM D2240 at 30s | 50 |
| Young modulus (kPa) | ASTM D575 | 250 |
| Thermal conductivity (W/m.K) | ASTM D5470 | 2 |
| Heat Capacity (J/g.K) (at 20°C) | ASTM E1269 | 1.0 |
| Electric breakdown voltage (V) | ASTM D 149 | AC: 20000 DC: 38000 |
| Volume resistivity (Ω.cm) | ASTM D257 | 10 ¹¹ |
| Flammability | UL 94 | V0 |
| Continuous use temperature (°C) | Internal | - 60 to 200 |



Product features

- European product (technology and manufacturing)
- · Silicone oil free (no leakage / low outgazing)
- · Wide web process, designed for large volume
- · Tacky surface on both sides

Storage

Store in dry conditions between 10 $^{\circ}\text{C}$ and 35 $^{\circ}\text{C}$ in its original packaging. Use within 12 months after delivery.

| Compression ratio | Compression force (N/6,4 cm²) |
|-------------------|----------------------------------|
| 10 % | 28 |
| 20 % | 78 |
| 30 % | 106 |
| 40 % | 158 |
| 50 % | 234 |
| Sustain 50 % | 123 |

- Test method: ASTM D575-91 for reference
- Specimen diameter: 28.6 mm
- Platen diameter: 28.6 mm
 Compression velocity: 5 mm /min
- Sustain 50 %: Remaining force after 1min at 50 % compression ratio

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