

NYSTEIN GAP PAD Flextein® S12

Technical Data Sheet

Product Description:

Flextein S12 Thermally Conductive Shims are highly compliant and provide excellent thermal conductivity while remaining cost effective. Specifically designed for heat transfer through gaps, it fills gaps and covers (microscopic) uneven surfaces to allow full contact between mating parts and improve heat transfer efficiency.

Flextein S12 products are self-adhesive on both sides, but can be supplied with one adhesive side through an additional process. This option ensures that the 'dry side' can be easily disassembled and detached without damage when in contact with chips, PCBs, etc. The other adhesive side is usually bonded to heat sinks/cooling guides/housings, etc.

Features & Benefits:

- Thermal conductivity 1.2 W/m·K
- Available in thicknesses from 0.012" (0.3mm) to 0.40 (10.0mm)
- Ultra soft and compressible for low stress
- Naturally tacky & re-workable



Typical Property Data:

Property	Unit	Parameter	Test Method
Appearance	- -	Grey	Visual
Thickness	mm	0.3 to 10.0	ASTM D374
Thermal Conductivity	W/m · K	1.20	ISO 22007-2
Thermal Resistance	@1 mm, 20 psi	1.16 °C·in ² /W	ASTM D5470
Hardness	Shore OO	55	ASTM D2240
Density	g/cm ³	1.75	ASTM D792
Dielectric Constant	1MHz	5.5	ASTM D150
Tensile Strength	psi	48	ASTM D412
Elongation	%	60	ASTM D412
Compression Deflection (%) at given pressure	10 psi	10	ASTM D575
	50 psi	42	
	100 psi	58	
Service Temp	°C	-40 to 150	Nystein
Flame Rating	- -	V-0	94 UL

Dielectric Strength	kV/mm	≥ 6.0	ASTM D149
Volume Resistivity	$\Omega \cdot \text{cm}$	$\geq 1.0 \times 10^{12}$	ASTM D257
RoHS	- -	Yes	Nystein

Typical Application:

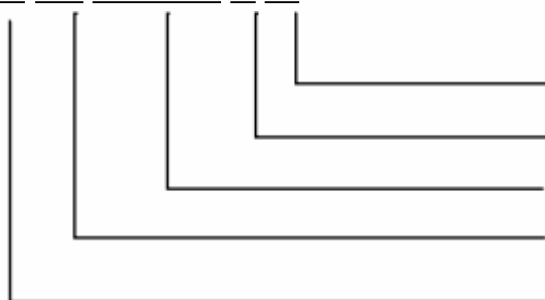
- Desktops, Laptops and Servers
- LED lighting equipment
- Electronic communication equipment
- LCD and PDP flat panel displays
- Automotive electronics, battery cooling

Configuration Available:

- Standard size 470×470 mm, sheet form and die-cut parts could be required.
- 0.3 through 10.0 mm thick material available in 0.25mm increments
- Natural tack on one or both side option

Ordering Guide:

Flextein® S12-020 47004700 IR D1



None: Double side tacky **D1:** Single side tacky **A1:** Single side adhesive

R: Rectangular; **IR:** Irregular

Size: 470mm*470mm

Thickness: 2.0mm

Series: S12

Storage conditions:

- Sealed at room temperature away from light, and stored in a dry place.
- Best Storage conditions: Temperature: 25°C (±3), Humidity: 50% (±10), can be stored for 12months.
- The materials taken out after opening may be contaminated during use, so please do not mix contaminated products with unopened products. Nystein assumes no responsibility for contaminated products or conditions other than the required storage conditions.
- For additional information, please contact your appropriate sales, technical support, or customer service representative promptly.

Declare

The information provided in this Technical Data Sheet (TDS), including product use and application recommendations, is based on our knowledge and experience with Nystein China products. The data contained in this TDS is for informational purposes only and is believed to be reliable. To obtain official product specifications for a specific product end use, please contact the sales, Application Engineer or customer service person with whom you are in contact. We are not responsible for results obtained by others using methods beyond our control. This product may have a variety of applications and different operating conditions in your environment that are beyond our control. Therefore, Nystein China assumes no responsibility for the suitability of our products for the processes and conditions under which you will use them and for the intended applications and results. We strongly recommend that you conduct tests to confirm the suitability of our products prior to their use.

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