

# NYSTEIN GAP PAD Flextein® S51

## Technical Data Sheet

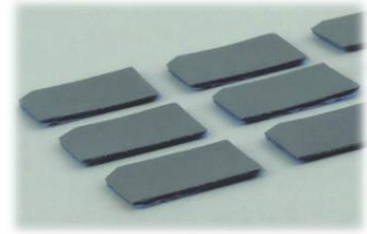
### Product Description:

Flextein S51 is a new, high thermal conductivity gap filler material. With a thermal conductivity of up to 5.1W/m.k, it is a thermally conductive material specifically designed for high power consumption and high heat performance application scenarios. In addition to the high thermal conductivity of the material itself, it also has good compressibility and fit, making it easier to adhere closely to electronic components, while covering microscopic uneven surfaces so that the mating parts can fully contact and improve the efficiency of heat transfer.

Flextein S51 has natural adhesion on both sides and can be attached to components by simply pressing down firmly during assembly, without the need for adhesive backing. The thickness of the product can be customized in the range of 0.5-10.0mm, or single-sided adhesion can be selected for ease of use.

### Features & Benefits:

- Thermal conductivity 5.1 W/m· K
- Soft and excellent maneuverability
- RoHS compliant
- Thickness range 0.02" (0.50mm) to 0.40" (10.0mm)



### Typical Property Data:

Property	Unit	Parameter	Test Method
Appearance	--	Grey	Visual
Thickness	mm	0.5 to 10.0	ASTM D374
Thermal Conductivity	W/m · K	5.1	ISO 22007-2
Hardness	Shore OO	55	ASTM D2240
Density	g/cm <sup>3</sup>	3.2	ASTM D792
Dielectric Strength	kV/mm	≥6.0	ASTM D149
Volume Resistivity	Ω ·cm	≥ 1.0 × 10 <sup>12</sup>	ASTM D257
Dielectric Constant	1MHz	6.5	ASTM D150
Oil seepage rate	%	< 1	125°C&48h
Service Temp	°C	-40 to 150	Nystein
Flame Rating	—	V-0	94 UL
RoHS	—	Yes	Nystein

**Typical Application:**

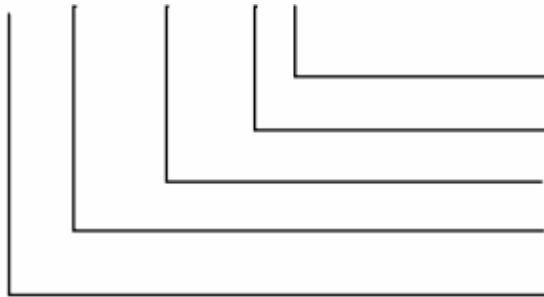
- Computers and servers and their peripherals
- Smartphone, tablet multimedia
- High-end network equipment
- Optical communication module

**Configuration Available:**

- Standard size 470×470 mm, sheet form and die-cut parts could be required.
- Standard thickness: 0.5mm (0.02") to 10.0 mm (0.40") in 0.5mm (0.02") increments. Can be customized according to customer needs
- Natural tack on one or both side option

**Ordering Guide:**

Flextein® S51-020 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:** S51

**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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