SHENZHEN NUODESITE TECHNOLOGY CO., LTD. **TDS**

Product manual

Product Model: NDST-CP120-F350-2T (Foamed Silicone Sheet)

(1) Product Description:

Nordest Products NDST-SPT Foamed Silicone Sheet. This foamed silicone sheet is used as a sealing gasket for battery boxes, reducing the jolts and vibrations of the battery box during the operation of electric vehicles, while also achieving the requirements of lightweight, automation, and low cost. It has good sealing performance, low density, and high flame retardancy. By wrapping the bottom of the power battery, it provides cushioning, anti-slip, and shockproof functions. It can adapt to various harsh internal environments, making it suitable for sealing components of new energy vehicles, protecting electronic components, and various cushioning applications; it also provides excellent flame retardancy, heat insulation, and shock absorption performance in various transportation equipment. Nordest silicone can provide rolled materials of different thicknesses, easy to process into the required sizes.

(2) Performance Features:

1. Excellent flame retardancy
2. Resistant to high and low temperatures
3. Low specific gravity, fine and uniform pore size
4. Waterproof, shock-absorbing, sealing, and heat insulating
5. UV-resistant and ozone-resistant
6. Highly resistant to mechanical fatigue
7. Good resistance to compressive deformation and creep

(3) Main Functions:

Waterproof sealing and shock protection for new energy vehicle batteries.

It plays a protective role when the power battery undergoes expansion or contraction deformation, mainly providing effects such as shock resistance, cushioning, sealing, and insulation.

Used as a sealing gasket for the battery box, it reduces the jolts and vibrations of the battery box during the operation of the electric vehicle.

Vibration isolation inside electronic devices and vehicles.

Flame retardant and heat insulating.

(4) Technical performance:

Regular performance:

Test Project	Parameter
Appearance	Gray
Thickness (mm)	2.0mm(±0.2mm)
Standard Width (mm)	200*200*2 meter wide
Densityg(cm^3)	0.35-0.4
Hardness (Shore C/°)	25 (±5)
Compression deflection (kPa)	65
Compression deformation (maximum %)	<0.2% (tested at 100℃ for 22 hours)>
Tensile strength (kPa)	429
Elongation (%)	83
Flame retardancy and gas release	
Flame retardancy	94V-0

Flame Spread Index (Ls)	<30
Toxic gas emission level	Compliant EN45545-2 R10(IN1C, IN15)

(5) Instructions for use:

The NDST-SPT foamed silicone sheet can provide single-sided or double-sided pressure-sensitive adhesive, making it easy to stick to different surfaces.

(6) Performance parameters:

Test Project	Parameter
Environmental performance	
Water absorption rate	0.66%
UV resistant	No performance degradation
Ozone Impact Level	0 (No cracking)
Corrosion-resistant	through
Electrical and thermal performance	
Dielectric constant	3.12
Insulation strength	89
Arcing resistance	90
Volume resistivityOhm-cm	10^{14}
Thermal conductivity (w/ ° K)	0.06
Temperature resistance	

Recommended temperature (℃)	-55-200
Recommended maximum temperature for intermittent use (℃)	250

(7) Width tolerance (porous):

Nominal width (inch)	Tolerance (None PSA)	Tolerance (have PSA)
0＜T≤3	±0.063	±0.031
3＜T≤8	±0.094	±0.031
8＜T≤12	±0.125	±0.031
12＜T≤18	±0.188	±0.031
18＜T≤26	±0.219	±0.063
26＜T≤36	±0.250	±0.063

(8) Storage and Shelf Life:

The shelf life is the 'Use By' date on the product label.

(9) Packaging specifications:

1. 5m/roll
2. 10m/roll
3. 20m/roll

For other packaging, please contact the company's sales staff.

(10) Usage restrictions:

This product has not been tested or shown to be suitable for medical or pharmaceutical use.

(11) Statement Matters:

1. We guarantee that the products sold are consistent with the samples you have confirmed;

2. All data in this manual are obtained under laboratory conditions. Due to differences in usage environments, actual usage data may differ from experimental data;

3. Please refer to this data and usage conditions for analysis and testing. We do not guarantee issues arising from the use of our products in specific situations, and we are not responsible for any direct, indirect, or accidental losses resulting from use in specific situations.

4. If you encounter any problems during use, please contact the sales personnel immediately, and we will wholeheartedly provide you with all possible assistance.