

One component moisture curing type special Modified silicone based elastic bond.

Product Name **Sharpie Elastic Bond PP Seal**

Sharpie Elastic Bond PP seal is a one-component moisture-curing modified silicone type elastic bond that can be used for various types of substrates. It is an idea changing product which made one of the most difficult adhesion materials - polypropylene (PP) possible to bond without any treatment. Adhesion between different materials such as plastic, metal, glass, and rubber material is also possible.

Advantages

- ✓ Strong adhesion to PP which has been considered difficult until now.
- ✓ Rapid curing type.
Open time not necessarily due to fast tack-free. Possible to paste immediately.
- ✓ Good adhesion to various substrates. In addition to PP, is also good adhesion to various kinds of substrates such as plastics, metals, glass, rubber, etc.
* Adhesion to polyethylene (PE) and fluororesin is not eligible.

Application

- ✓ It can also be used for daily necessities such as toys, furniture, gardening articles, sporting goods etc. and professional items like automobile parts.
- ✓ Different materials ... combination of Plastics and metals, glass/ tiles and plastic or metal.
- ✓ Adhesion with an uneven substrate or surfacing material.

Characterization

General

Product Name		Sharpie Elastic Bond PP Seal
Appearance		Pasty
Main component		MS Polymer
Density(g/m)		1.36
Viscosity(Pa·s)	23°C	200
	30°C	60
Tack-Free time (min.)	23°C	90
	5°C	180
Nonvolatile (%)		92.5

Curing properties (criterion)

Unit: Day.

Curing Condition	The thickness of skin forming <5mm>
5°C*50%RH	10~
23°C*50%RH	2~3
50°C*50%RH	1~2

✚ Cured properties (JIS K 6251 Dumbbell-3)

50%Tensile stress	(N/mm ²)	0.19
Maximum tensile stress	(N/mm ²)	0.92
Elongation at break	(%)	825
Hardness	(Shore A)	13

* conditions 23 ° C 7 days. Dumbbell No. 3, thickness: 2.5 mm, tensile speed: 500 mm/min.

✚ Adhesive properties

◇ Shear tensile properties. (substrates: PP x PP; No-primer.)

	Maximum tensile stress (N/mm ²)	Adhesive failure
After curing	0.50	NONE (Cohesive failure)
After heating (80°C)	0.62	NONE (Cohesive failure)
After immersion in water	0.33	NONE (Cohesive failure)

- ◇ Unit: N/mm²
- ◇ Adhesive square: 25mm*12.5mm
- ◇ Adhesive thickness:0.1mm
- ◇ Tensile speed: 5mm/min.

◇ Tensile adhesion properties. JIS A1439 (substrates: Aluminum; No-primer.)

		50% tensile stress (N/mm ²)	Maximum tensile stress (N/mm ²)	Elongation at break (%)
After curing	23°C	0.13	0.80	718
After heating (80°C)	23°C	0.15	0.98	557
After immersion in water	23°C	0.07	0.41	748

◇ Adhesion properties to various materials. (Non-Primer)

Unit: N/mm²

Adhered material	Adhesion	Shear strength	Adhered material	Adhesion	Shear strength
Aluminum	○	0.58	PC(Polycarbonate)	○	0.67
Stainless	○	0.50	PBT (polybutylenetere phtalate)	○	0.59
Glass	○	0.67	PES (Polyethersulfone)	×	0.30
Wood	○	0.54	PS (Polystyrene)	○	0.61
FRP	○	0.66	PVC (Polyvinyl chloride)	○	0.54
PP (polypropylene)	○	0.45	PPO (Modified polyphenylene ether)	○	0.56
EPDM Rubber	○	-	PET (Polyethylene terephthalate)	○	0.55
ABS	○	0.50	PMMA (Polymethylmethacrylate)	×	0.11
AS	○	0.56	PPS (Polyphenylene sulfide)	○	0.56
PA (Polyamide)	○	0.60	PE (polyethylene)	×	0.17

NOTICE

1. The surfaces to be bonded must be dry, free of oil, dust, grease and other contaminants.
2. NO operation when it rains or snows.
3. Avoid directly touching by using gloves.
4. Before the operation, wooden corrosion should be removed.
5. CAN NOT be operated on asphalt.
6. NO application on the surface which contained volatile.
7. In the case of adhesion between large area materials or moisture-proof materials such as metal, may take time or may not be cured.
8. DO NOT operate to thin or it will turn to white in a short-term. the color may be changed to yellow in case of separating from the container, but it doesn't affect the performance.

ATTENTION

1. Keep away from heat/sparks/static electricity/open flames/hot surfaces.
2. No smoking.
3. Do not breathe dust/fume/gas/mist/vapors/spray.
4. Wear protective gloves/protective clothing/eye protection/face protection.
5. Avoid release to the environment.
6. IF SWALLOWED: Rinse mouth.
7. IF exposed or if you feel unwell: Immediately call a POISON CENTER or doctor/physician.
8. IF skin or eye contact occurs immediately flush with water for 15 minutes and call a POISON CENTER or doctor/physician.
9. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
10. Keep out of reach of children.
11. Storage in a dark cold place. Keep away from sunshine.
12. Construction and Industrial use ONLY.
13. See SDS for the detailed description.

PACKAGING AND COLOR

SHARPIE Elastic Bond PP Seal ▪ ▪ ▪ ▪ 320ml cartridgex10 /box
 Color ▪ ▪ ▪ ▪ White

*The data above, due to different materials and conditions of application which are beyond our knowledge and control we strongly recommend caring out sufficient tests in order to ensure that our products are suitable for the intended process and applications. Except for wilful acts any liability based on such recommendations or any oral advice is hereby expressly excluded.



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