

TM-181 VHB Acrylic Foam Tape

PRODUCT



(Product of Sumitomo 3M Ltd.)

Model No.	Width (mm)	Standard Length (m)	Code No.	
TM-181-20-12	12	11	7501	
TM-181-20-19	19		7502	
TM-181-20-25	25		7503	
TM-181-20-300	300		7504	
TM-181-30-12	12		7505	
TM-181-30-19	19		7506	
TM-181-30-25	25		7507	
TM-181-30-300	300		7508	
TM-181-45-12	12		7509	
TM-181-45-19	19		7510	
TM-181-45-25	25		7511	
TM-181-45-300	300		7512	

General Characteristics

Product		General		Plasticizer Resistance
		20-12~ 20-300	30-12~ 30-300	45-12~ 45-300
Color		White (Not transparent)		
Thickness	VHB (mm)	0.40	0.64	1.14
	Separate Film (mm)	0.08		
Density (g/cm ³)		0.75		
Tensile Strength and Elongation of VHB Base Material at Breaking	N/cm ² (kgf/cm ²)	120 (12.2)		
	(%)	600		
25% Compressive Stress N/cm ² (kgf/cm ²)		130 (13.3)		
Heat Transfer Rate (W/mK)		0.16		
Water Absorption Coefficient (%)		0.6		
Permissible Temp. Range (°C)		-20~150		
Storage Condition		25°C and less, Interior		

Adhesiveness with Various Surfaces

Evaluation: Peel off strength, N/cm² (kgf/cm²), for 90 degree angle: N/cm² (kgf/cm²)

Product		General		Plasticizer Resistance
		20-12~ 20-300	30-12~ 30-300	45-12~ 45-300
Material of Surface				
Stainless Steel (SUS304)		40 (4.08)	49 (4.99)	67 (6.83)
Steel (SPCCB)		40 (4.08)	49 (4.99)	67 (6.83)
Aluminum (A1050P)		18 (1.83)	29 (2.96)	41 (4.18)
ABS Resin		19 (1.94)	25 (2.55)	33 (3.36)
Acrylic Resin		15 (1.53)	20 (2.04)	28 (2.85)
Hard Vinyl Chloride Resin		20 (2.04)	29 (2.96)	60 (6.12)
Soft Vinyl Chloride Resin		22 (2.24)	26 (2.65)	67 (6.82)
Glass		22 (2.24)	30 (3.06)	33 (3.36)

Adhesive Characteristics

Product		General		Plasticizer Resistance
		20-12~ 20-300	30-12~ 30-300	45-12~ 45-300
Test				
Peel Off Strength for 90 Degree Angle N/cm ² (kgf/cm ²)		40 (4.08)	49 (4.99)	67 (6.83)
Adhesive Shear Strength R/T×72HR		168 (17.1)	110 (11.2)	100 (10.2)
N/cm ² (kgf/cm ²) 65°C×3HR		220 (22.4)	159 (16.2)	149 (15.2)
Adhesive Tensile Strength N/cm ² (kgf/cm ²)		88 (8.97)	142 (14.5)	118 (12.0)

General

VHB acrylic foam tape is adhesive material developed with new concept and it is composed of flexible and strong acrylic foam base material obtained by special technique and acrylic adhesive that has excellent weather-resistance and chemical-resistance.

Not only a strong adhesive for fixing various type of industrial material but also it adds many values onto the product.

Characteristic

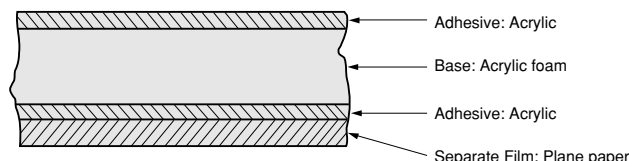
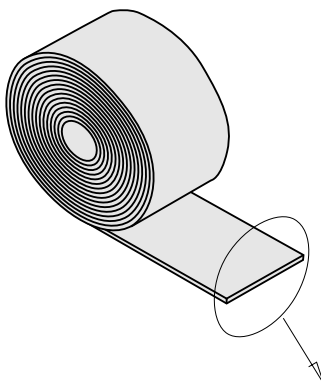
1. Following the deformation of the subject, no residual strain shall be remained.
2. High peel off strength to absorb resilience.
3. Pressure sensitive adhesive at ordinary temperature.
4. Prevent stress concentration by its surface jointing.
5. High sealing performance.
6. Can be used exterior condition, for its excellent weather-resistance.
7. Excellent performance on vibration absorbing.
8. Any shape or any width of tape can be made. Please consult with us.

Installation Instruction

1. Remove on any oil, moisture, and dust from the surface of material to be fixed.
2. Apply 50 N/cm², 5.10kgf/cm², and more pressure to VHB with tool such as a press or a roller, for pressure adhesion.
3. Heat VHB and the material surface up, maximum 100°C, in case the room temperature is 10°C and less. The temperature of VHB and the surface of material to be fixed should be 20°C and more at the time of fixing.
4. A primer exclusively used for the fixing is available to get more effective adhesion. Please consult with us.
5. The tape should be stored interior avoiding direct sunlight.

Notes for Fixing

1. Care should be taken not to give any tension to the base while fixing VHB onto the surface. Adhesiveness shall be lost when VHB is fixed elongated.
2. Although VHB shows maximum adhesive strength at about 72 hours after the fixing, some initial adhesive strength shall be shown just after the fixing so that it may be very difficult to peel VHB off from the surface even just after the fixing. Care should be taken for setting of VHB before fixing.



Structural Section