Technical Data Sheet

Acrylic Foam Tape GT7100 Series

General Information :

The Acrylic Foam Tape GT7100 Series, which is made by a special process, has a superior adhesion performance and high flexibility. This tape is specially designed for exterior and interior parts attachments of automobiles. GT7100 series provides an equivalent adhesion properties to conventional Acrylic Foam Tape and comparable initial adhesion performance at low ambient temperature with Hi-Tack Acrylic Foam Tape designed for an improvement of low temperature workability.

Features :

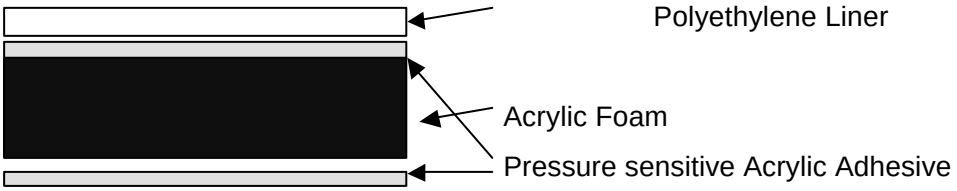
a) Excellent adhesive performance at low temperatures in comparison with those of the conventional Acrylic Foam Tape.

b) Follows the shrinkage and elongation of the plastic part caused by the temperature change, and has good stress relaxation properties which are very important for the automotive parts attachments.

c) Has a high final adhesion and peel strength.

d) Excels in a variety of weather, solvent and high temperature resistance.

Configuration :



Products lineup :

Product No.	Tape		Liner	
	Thickness	Color	Color	Material
GT7102	0.2mm	Gray	Translucent red	Polyethylene
GT7104	0.4mm			
GT7108	0.8mm			
GT7112	1.2mm			
GT7116	1.6mm			
GT7120	2.0mm			
GT7125	2.5mm			
GT7130	3.0mm	White		
GT7135	3.5mm			
GT7140	4.0mm			

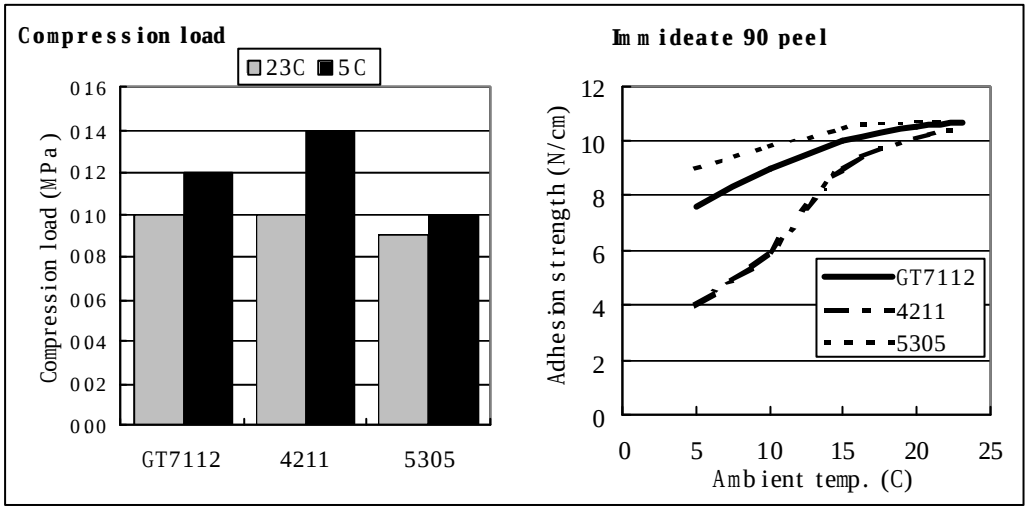
Usage :

Body side molding, Weather strip, Bumper molding, Roof molding, Window molding, Emblem, Door edge molding, End rubber, Pad protector, Mud guard, Big side protector, Side visor, etc.

Test result (Vol. 1) :

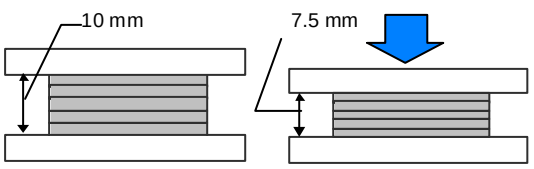
Items		Substrates	GT7112	#5305 (Reference)	#4211 (Reference)
Thickness (mm)		-	1.2	1.2	1.2
180 Peeling strength N/cm	Initial (20 minutes after adhesion)	Painted panel	11.4	11.4	10.6
		PVC panel	16.9	15.7	16.9
	Noraml (24 hours after adhesion)	Painted panel	14.9	14.9	14.9
		PVC panel	17.0	15.7	17.2
	At high temperature (At 80C ambient temp)	Painted panel	8.1	7.8	8.2
		PVC panel	8.5	7.8	8.6
	Heat aging (336 hours at 80C)	Painted panel	19.7	19.2	20.0
		PVC panel	16.2	15.3	16.5
	Warm water immersion (336 hours in 40C water)	Painted panel	16.5	15.7	16.9
		PVC panel	16.2	15.3	16.5
Shear strength MPa	Initail	Painted panel and PVC panel	0.61	0.54	0.63
	Noraml		0.61	0.55	0.63
	At high temperature		0.20	0.19	0.21
	Warm water immersion		0.58	0.53	0.60
	Gasoline immersion (1 hour)		0.60	0.54	0.62
	Wax-remover immersion (1 hour)		0.53	0.47	0.55

* Painted panel : White paint used on a vehicle
* N-200 primer (10 time diluted C-100 primer) is applied on the PVC panel



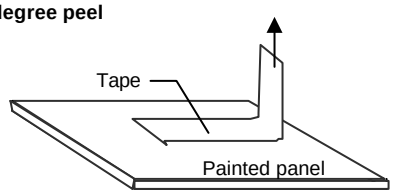
Test methods :

Compression load



Pile 25mm by 25mm tapes to a thickness of approximately 10mm, and measure load by compression test machine in 10mm/minute test speed when it is compressed to 75% from initial thickness

90 degree peel



Tape size : 10mm width
Pressurizing : 2kg roller
Test temp. : 5C, 10C, 15C, 20C, 23C
Peel speed : 300 mm/mintue

Test result (Vol. 2) :

Items		Substrates	GT7102	GT7104	GT7108	GT7112	GT7116
Thickness (mm)		-	0.2	0.4	0.8	1.2	1.6
180 Peeling strength N/cm	Initial (20 minutes after adhesion)	Painted panel	6.9	8.5	10.2	11.4	12.4
		PVC panel	10.5	12.0	14.2	16.9	19.2
	Noraml (24 hours after adhesion)	Painted panel	8.2	11.0	12.6	14.9	16.1
		PVC panel	11.8	12.8	14.7	17.0	19.2
	At high temperature (At 80C ambient temp)	Painted panel	5.2	6.1	7.5	8.1	8.4
		PVC panel	5.5	6.2	8.1	8.5	9.3
	Heat aging (336 hours at 80C)	Painted panel	12.7	14.2	17.4	19.7	22.2
		PVC panel	4.0	8.0	13.4	16.2	18.6
	Warm water immersion (336 hours in 40C water)	Painted panel	9.9	12.1	15.3	16.5	19.3
		PVC panel	9.1	10.8	14.0	16.2	18.6
Shear strength MPa	Initail	Painted panel and PVC panel	0.84	0.75	0.70	0.61	0.56
	Noraml		0.86	0.79	0.71	0.61	0.56
	At high temperature		0.28	0.24	0.22	0.20	0.19
	Warm water immersion		0.84	0.75	0.67	0.58	0.53
	Gasoline immersion (1 hour)		0.83	0.75	0.69	0.60	0.52
	Wax-remover immersion (1 hour)		0.75	0.69	0.61	0.53	0.47

Items		Substrates	GT7120	GT7125	GT7130	GT7135	GT7140
Thickness (mm)		-	2.0	2.5	3.0	3.5	4.0
180 Peeling strength N/cm	Initial (20 minutes after adhesion)	Painted panel	12.7	13.4	13.8	14.8	15.3
		PVC panel	20.9	23.5	24.3	24.6	25.8
	Noraml (24 hours after adhesion)	Painted panel	17.4	19.2	21.2	23.5	25.3
		PVC panel	21.0	23.3	24.5	25.1	25.9
	At high temperature (At 80C ambient temp)	Painted panel	8.6	9.0	9.4	9.4	9.6
		PVC panel	9.5	9.7	10.2	10.5	10.5
	Heat aging (336 hours at 80C)	Painted panel	24.5	26.8	29.6	31.4	32.1
		PVC panel	20.5	23.2	26.0	29.0	31.1
	Warm water immersion (336 hours in 40C water)	Painted panel	21.2	23.5	25.7	27.2	28.9
		PVC panel	20.3	22.1	24.8	27.0	28.7
Shear strength MPa	Initail	Painted panel and PVC panel	0.52	0.48	0.47	0.45	0.45
	Noraml		0.52	0.49	0.47	0.45	0.45
	At high temperature		0.18	0.17	0.16	0.15	0.15
	Warm water immersion		0.49	0.47	0.46	0.44	0.42
	Gasoline immersion (1 hour)		0.48	0.47	0.45	0.44	0.44
	Wax-remover immersion (1 hour)		0.43	0.40	0.40	0.39	0.38

Test methods :

(1) Thickness : Measured by a dial thickness gauge (in accordance with JIS Z0237)

(2) 180 ? peel strength : Peel off the tape in 180 ? direction and measure the adhesion to the substrate with a tensile strength test machine after the exposures in the following conditions.

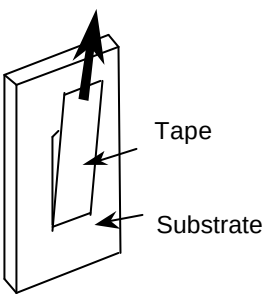
a) Initial state : 23? x 20 min.

b) Normal state : 23? x 24 hrs.

c) At high temperature : b)? at 80?

d) Heat aging : b)? 80? x 336 hrs. ? b)

180 degree peel



e) Warm water immersion : b)? 40? water x 336 hrs. ? b)

* Tape size : 25 mm width
* Rolling pressure : 5 kg roller one-way
* Peeling speed : 50 mm/min.

(3) Shear strength : Measure the strength needed to shear.

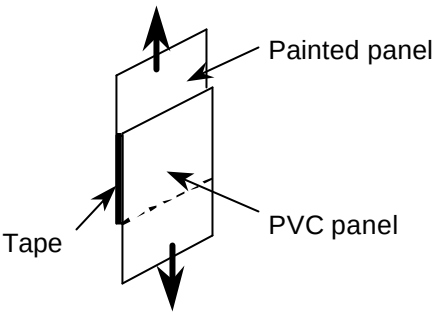
a),b),c),e) : as same as the conditions of 180 ? peel strength

f) Gasoline immersion : b)? gasoline x 1 hr. ? b)

g) Wax-remover immersion: b)? wax-remover x 1 hr. ? b)

* Tape size : 25 mm x 25 mm
* Rolling pressure : 5 kg roller one-way
* Tensile speed : 50 mm/min.

Shear strength



Notice :

- It is recommended to avoid leaving the products outside for a long term or storing them at high temp. and humid condition, although the products has superior weathering durability.
- The data in this data sheet isn't a warrantee performance but the test result. Adhesion strength varies by a substrate and adhesion condition.