Technical Data Sheet

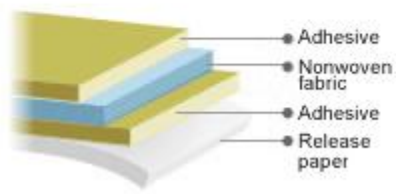
Special resin-base hotmelt double coated tapes NP605

Features

- Low temperature heat activation type enables bonding at 90℃, and positive adhesion performance is demonstrated in bonding by 100 ℃ or more. Its adhesive strength is retained at a wide range of temperatures.

- The tape is tack-free at room temperature, enabling punching and spinning without release paper. the design and appearance of the products on which it is used can be immensely improved.

Structure



Main component	Special resin base
Carrier	Nonwoven fabric
Color	Translucent white
Adhesive thickness (μm)	About 85
Release paper thickness (μm)	About 60
Bonding strength (N/40mm×40mm) *	200
St'd size (width & length)	400mm×100m
Standard bonding conditions	Temp:90℃ to 140℃ Time:8 to 15sec. Pressure:0.2 to 0.3MPa

* Cleavage strength （Substrate: AL / PS）

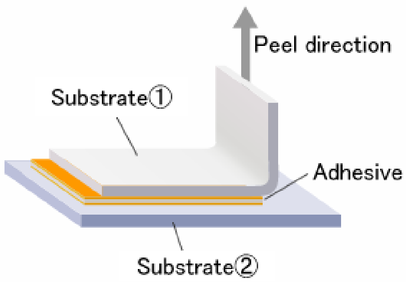
Suitable use

- Ideal for bonding plastics and metals.

Technical data

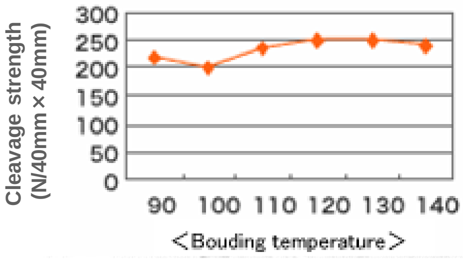
1. Bonding strength on various bonding temperature (Cleavage strength)

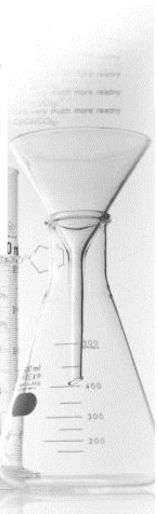
＜Test piece condition＞
Substrate: Aluminum plate (t=0.4mm) /
Polystyrene plate (t=5mm)
Bonding area: 40mm×40mm
Bonding condition: temperature :90℃ to 140℃,
pressure: 0.3MPa, time:10sec
Measuring condition: 23℃±5℃ 60%±20%RH
Peeling speed: 20mm/min
[Left at RT for one hour before measurement]



<Cleavage strength test>

＜Results＞



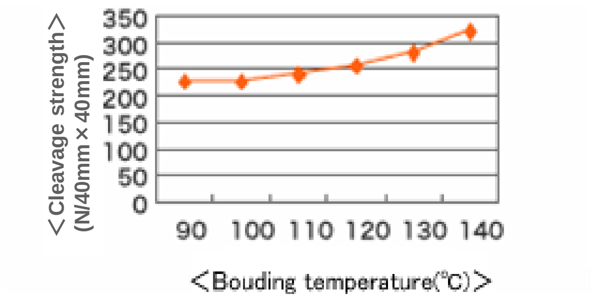


2. Reliability of bonding strength after adhesion under different conditions (Cleavage strength)

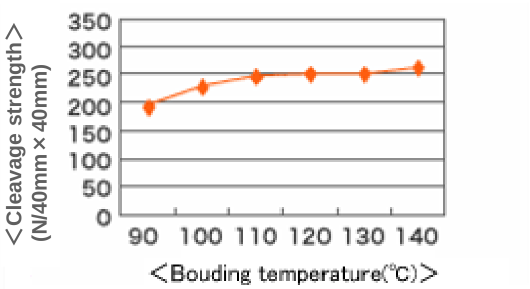
∗ The test condition is as the same as indicated in 1.Bonding strength on various bonding temperature.

＜Results＞

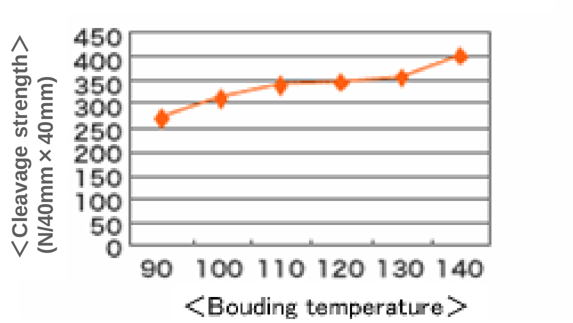
Heat cycle test(-30℃ 3Hr＋70℃ 3Hr)×10cycles



Adhesion aging test(65℃ 80RH×7days aging)



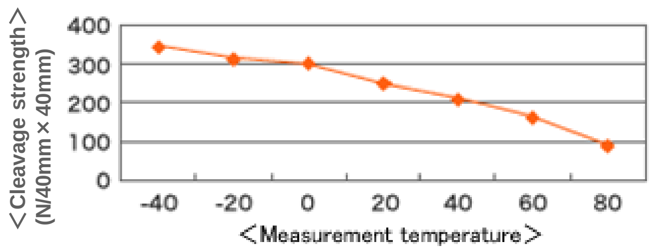
Adhesion aging test(65℃ 80RH×14days aging)



3. Bonding strength at different temperatures （Cleavage strength)

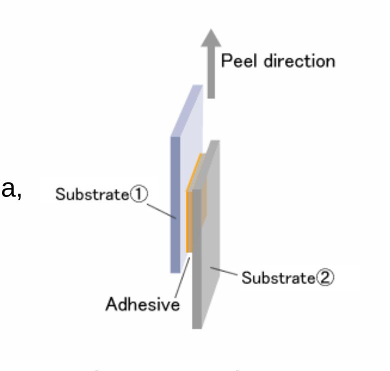
＜Test piece condition＞
Substrate：Aluminum plate (t=0.4mm) / Polystyrene plate (t=5mm)
Bonding area：40mm×40mm
Bonding condition：temperature: 120℃, pressure: 0.3MPa, time: 10sec
Peeling speed：20mm/min
[Left at RT for one hour and then at each temperature for 30 minutes before measurement]

＜Results＞



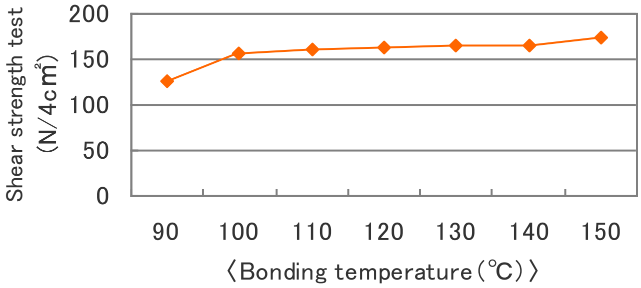
4. Shear strength at different temperatures

<Test piece condition>
Substrate: SUS plate (t=0.5mm)/PC･ABS plate (t=5mm)
Bonding area: 20mm × 20mm
Bonding condition: temperature :90℃ to 150 ℃, pressure:0.3Mpa,
press time:10sec
Measuring condition: 23℃±5℃ 60%±20%RH
Peeling speed: 20mm/min
[Left at RT for one day before measurement]



<Shear strength test>

＜Results＞



Revised in Oct. 2012