

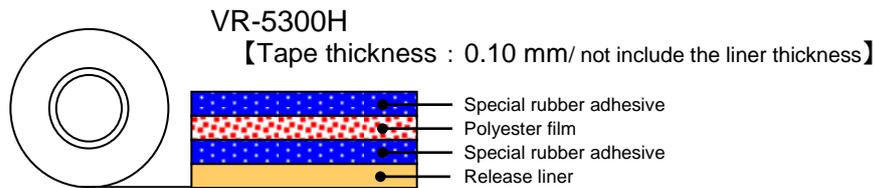
Double-coated adhesive tape

# VR-5300H

## Outline

Nitto Denko VR-5300H is a double-coated adhesive tape consisting of the special rubber adhesive. This tape offers excellent adhesive strength for a wide variety of substrates, and superior resistance to repulsion force for metals and plastic parts. This tape can be applicable to various rubbers and foams, too.

## Structure



## Feature

- Offers excellent adhesion for various substrates by using the special rubber adhesive.
- Offers superior re-peeling properties by possession of PET carrier.
- Ten restricted substances by RoHS are not contained.

## Application

- Bonding of metals plates, plastic plates, rubbers and foams.
- Bonding of parts in:  
Printers, Copiers, Televisions, Other office equipment and Home appliances.

## Sizes

Tape thickness(mm)	Width(mm)	Length(M)
0.10	5~1,200	50

For more information, please contact us.

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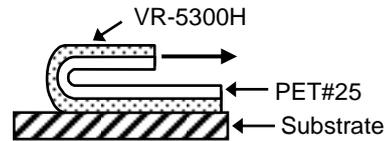
**Properties**

●180 degree peeling adhesion for each substrate

Substrate	VR-5300H
Stainless steel plate	25
Aluminum plate	25
ABS plate	26
PCABS plate	29
Polystyrene plate	30
HIPS plate	29
Polycarbonate plate	30
Polypropylene plate	20
Polyacetal plate	22
Polyethylene plate	12
Polyurethane foam	9
EPT rubber	12
CR rubber	14

(Unit : N/20mm)

Tape area : 20mm width  
 Lining material : PET#25  
 Pressing condition : 1 pass back and forth with a 2-kg roller at 23 degree C, 50% RH  
 Applying condition : 23 degree C/50%RH x 30min  
 Peeling speed : 300mm/min  
 Peeling angle : 180 degree  
 Measurement temp : 23 degree C, 50%RH



●180 degree peeling strength for each temperature

Temperature	VR-5300H
0 degree C	27
23 degree C	25
40 degree C	29
60 degree C	20

(Unit : N/20mm)

Substrate : Stainless steel plate  
 Tape area : 20mm width  
 Lining material : PET#25  
 Pressing condition : 1 pass back and forth with a 2-kg roller at 23 degree C, 50%RH  
 Applying condition : Each temperature for 30min  
 Peeling speed : 300mm/min  
 Peel angle : 180 degree  
 Measurement temp : 0,23,40,60 degree C

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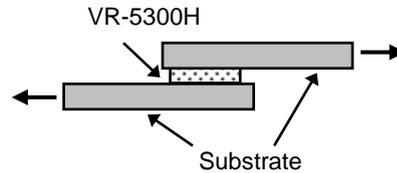
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• Shearing adhesive strength for each substrate

Substrate	VR-5300H
Stainless steel plate	930
Aluminum plate	850
PCABS plate	350
HIPS plate	320
Polycarbonate plate	360

(Unit : N/20mm×20mm)

Tape area : 20mm×20mm  
 Pressing condition : 1 pass back and forth with 5-kg at 23 degree C/50%RH  
 Applying condition : 23 degree C/50%RH×30min  
 Peeling speed : 50mm/min  
 Measurement temp : 23 degree C/50%RH

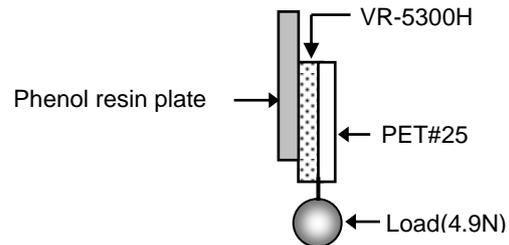


• Holding power

Temperature	VR-5300H
23 degree C	0.1
40 degree C	0.2
60 degree C	0.2
70 degree C	0.4

(Unit : mm/hr)

Substrate : Phenol resin plate  
 Lining material : PET#25  
 Pressing condition : 1 pass back and forth with 2-kg at 23 degree C/50%RH  
 Applying condition : 23 degree C/50%RH×30min  
 Tape area : 20mm×10mm  
 Load : 4.9N(500gf)  
 Load time : 1hr

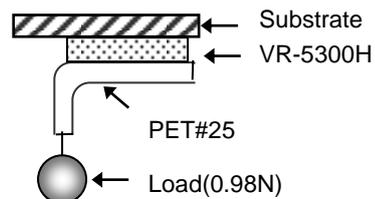


• Static load peeling

Substrate	VR-5300H
Stainless steel plate	2.0
ABS plate	1.8
Polystyrene plate	2.1
Polypropylene plate	2.0

(Unit : mm)

Tape area : 10mm×50mm  
 Backing material : PET#25  
 Pressing condition : 1 pass back and forth with a 2-kg roller at 23 degree C/50%RH  
 Applying condition : 23 degree C/50%RH×30min  
 Load : 0.98N(100gf)  
 Application temp : 23 degree C/50%RH  
 Load time : 24hrs



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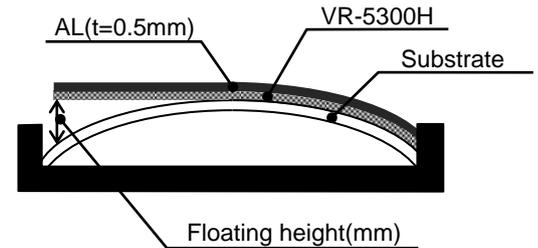
●Resistance to repulsion for plastic plate

Substrate	VR-5300H
ABS plate	< 1
Polypropylene plate	< 1
Polystyrene plate	< 1

(Unit : mm)

Tape area : 20mm×180mm  
 Substrate size : 30mm×200mm  
 Lining material : AL (t=0.5mm)  
 Pressing condition : 23 degree C/50%RH  
 Applying condition : 23 degree C/50%RH for 24 hrs  
 Repulsion condition :

Laminate a substrate and AL plate with tape by laminating machine. Fit the left sample into wooden mold then leave it at 70 degree C x 72 hrs and measure the floating height.



●180 degree peeling adhesion -Aging(durability) at each condition after applying

Condition	VR-5300H	
Initial(23 degree C/50%RH×30min)	25	
-30 degree C×30 days	25	
80 degree C	14 days	29
	30 days	32
40 degree C/92%RH×30 days	33	
60 degree C/95%RH×30 days	35	
Heat shock[100cycle] <sup>*1</sup>	33	
Heat cycle[40cycle] <sup>*2</sup>	31	

(Unit : N/20mm)

Substrate : Stainless plate  
 Lining material : PET#25  
 Pressing condition : 1 pass back and forth with 2-kg roller at 23 degree C/50%RH  
 Applying condition : Refer to the left table  
 Peeling speed : 300mm/min  
 Peeling angle : 180 degree  
 Measurement temperature : 23 degree C/50%RH

\*1 : Heat shock condition  
 [-40 degree C x 30min ⇄ 90 degree C x 30min]  
 100cycle

\*2 : Heat cycle condition  
 [-20 degree C x 6hr ⇒ (1hr) ⇒ 60 degree C/95%RH x 6hr ⇒ (1hr) ⇒]  
 40cycle

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## **Precautions when using**

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- Remove all oil, moisture and dirt from the surface of the substrate before applying.
- Since the tape is pressure-sensitive adhesive, be sure to apply enough pressure with a roller or press when applying. Otherwise it might be affected to its properties and appearance.
- The tape may not adhere well to extremely uneven or distorted surfaces. Enough Leveling off the surface should be required before applying.
- It takes certain time to get full adhesive strength after applying, keep away the tape from any stress for a several hours after applying.
- Depending on a rubber material, there may be a risk of affecting adhesive property over time due to migration of component from rubber material. Please conduct a thorough evaluation in advance, on initial adhesive strength and its change over time.
- This product uses a rubber adhesive, which is easily affected by heat and oxygen compared to acrylic adhesive. Please conduct a thorough evaluation in advance on initial adhesive properties and its change over time, to determine application area and usage.

## **Precautions when storing**

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- Please be sure to keep the tape in its box when not using.
- Please keep in a cool and dark place away from direct sunlight.

## **Safety precautions**

 <b>WARNING</b>
<ul style="list-style-type: none"><li>● Make sure the product is suitable for the application (objective and conditions) before attempting to use. The tape may come off depending on the substrate to which it is applied or conditions under which it is applied.</li><li>● Use in combination with another method of joining if there is possibility of an accident.</li></ul>

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