

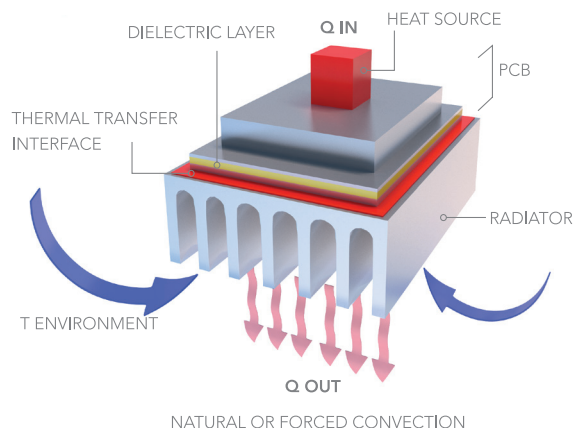


TR-SERIES  
THERMAL CONDUCTIVE TAPES

**Nitto**

### THERMAL TRANSFER

Heat transfer management is becoming increasingly important. Equipment generates more and more heat, which needs to be dissipated effectively to avoid malfunctioning, increased consumption and shorter device lifespan. It is at the thermal transfer interface that Nitto presents a range of adhesive tapes providing innovative solutions for heat management.

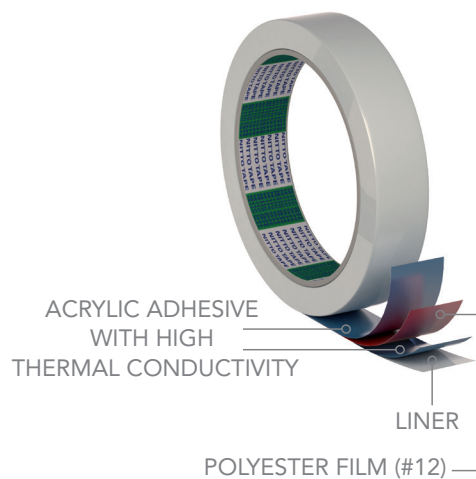


### TR-SERIES

Nitto, has launched a series of adhesive tapes with excellent thermal transfer qualities - the **TR-Series**

SUPPORT THICKNESS (mm)	0.12	0.20	0.25
POLYESTER	TR-5310EX	TR-5320F	TR-5325F

### PET SUPPORT TAPE



### OUR PRODUCT RANGE

Nitto provides a complete portfolio of tapes within the TR-Series, made in different thicknesses. Each tape has different adhesion and thermal resistance. PET tapes increase the breaking strain if necessary.

CHARACTERISTICS	UNITS	TR-5310EX	TR-5320F	TR-5325F
Tape thickness	mm	0.12	0.20	0.25
Adhesion	N/25mm	15	13.75	14.25
Thermal conductivity	W/m K	1.1	1.0	1.0
Thermal resistance	K cm <sup>2</sup> /W	1.2	3.1	3.5
Flame retardant	UL 94	V-0	V-0	V-0
Breaking strain	KV	1	9	9.6
Support		-	PET#12	PET#12

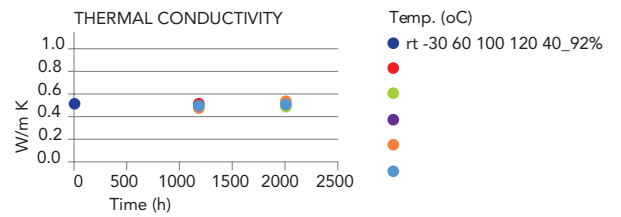
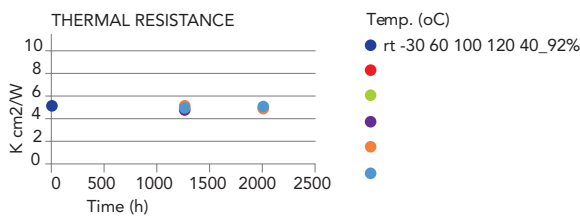
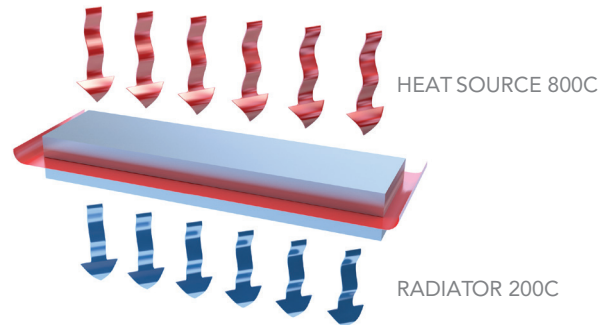
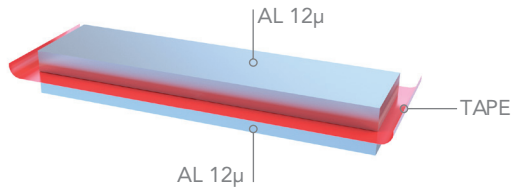


### WHAT IS THE MARKET USING?

PRODUCTS	HANDLING	STRENGTHS	WEAKNESSES
Silicone sheets	Too soft	Common as it is a thermal product	Poor adhesion Material hardens at high temperature and after time
Grease	Oozes out	Easy to apply	Difficult to control quantity High cost Softens at high temperature and after time
Adhesive	Oozes out	Less screws	Difficult to control quantity High cost Softens at high temperature and after time Long recovery time
Thermal blanket	Good	High thermal transfer	Not self-adhesive, needs screws and can shift
Thermal transfer tape	Good	High adhesion Easy handling Efficient thermal conductivity	Depending on the size of the piece, difficult for the operator to position

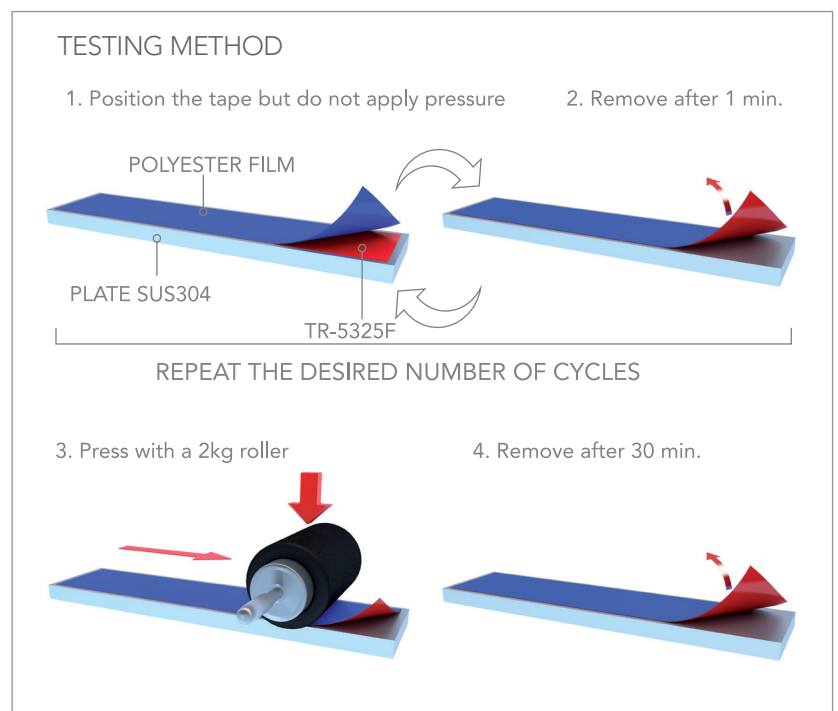
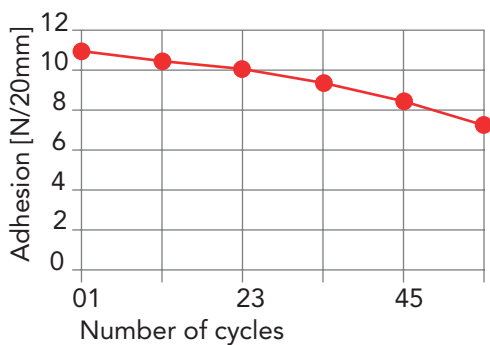
### STABLE SOLUTION

TR-Series belts are designed to last, providing stability over time of use. Below are the reliability tests of the TR-5325F.



### FUNCTIONAL SOLUTION

Another advantage of this innovative solution is that it allows repositioning, facilitating work processes. It is therefore possible to apply and remove the tape several times, with hardly any loss of adhesion.



### MAIN CHARACTERISTICS

- GOOD THERMAL CONDUCTIVITY
- VERY LOW THERMAL RESISTANCE
- HIGH RELIABILITY AND DURABILITY OVER TIME
- EASY REWORK AND REPOSITIONING (WITHIN THE FIRST 10')
- WITHSTANDS HIGH TEMPERATURES
- FLAME RETARDANT ACCORDING TO UL-94 STANDARD
- HIGH ADHESION AVOIDING THE USE OF SCREWS
- TAPE PORTFOLIO FOR VARIOUS APPLICATIONS WITHIN THE SECTOR

### OUR PRODUCT RANGE

Table of specifications compared to other solutions:

CHARACTERISTICS	UNITS	NITTO TR-5325F	NITTO TR-5925F	TAPE A	TAPE B	C SILICONE
Tape thickness	mm	0.25	0.25	0.13	0.25	1
Adhesion	N/25mm	14.25	23.5	10.40	17.40	0.25
Thermal conductivity	W/m K	1.0	1.1	0.6	0.5	1.7
Thermal conductivity in X-Y axes*	W/m K	>2.5	>2.5	0.6	0.5	1.7
Thermal resistance	K cm <sup>2</sup> /W	3.5	2.8	4.9	8.1	5.9
Flame retardant	UL 94	V-O	V-O	No	No	V-O
Breaking strain	KV	9.6	3.1	4.9	1.7	15.8

\*Heat source 800°C, radiator 200°C



## Feel the worldwide NITTO strength all across EMEA

Backed by the strength and worldwide reputation of Nitto Denko, our representatives have close relationships with their customers. They understand their customer's needs and can help them select the best solution or find a way to create a new one that's best suited to their needs.

Nitto Denko Corporation is the parent company of Nitto EMEA. Set up in 1918 in Japan, the multinational now oversees the operations of more than 120 companies all over the world.

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