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Scotch BRAND

Adhesives Tapes & Related Prodcuts

Product Information

Y9460

Y9469

Y9473

"ISOTAC" Y9460, Y9469 and Y9473 ADHESIVE TRANSFER TAPES

DESCRIPTION: The "ISOTAC" range of Adhesive Transfer Tapes is a 100% acrylic polymer adhesive, supplied in roll form with siliconised poly-coated protective paper liner for ease of handling and application.

APPLICATION: "ISOTAC" Adhesive Transfer Tape, available in three thicknesses, is designed to bond two similar or dissimilar materials permanently in a wide variety of industrial applications. "Isotac" Y9460, 0.05mm (2 mils) thick, is intended for use on relatively smooth, non-porous surfaces. For applications involving relatively rough, textured or deeply embossed surfaces, which cannot be joined together with a thin adhesive layer, Y9469 0.27mm (5 mils) thick and Y9473, 0.254mm (10mils) thick will readily conform to such uneven surfaces to permit more intimate surface-to-surface contact and substantially improved adhesion.

TECHNICAL INFORMATION:

CONSTRUCTION:

Adhesive: 100% acrylic polymer adhesive
Liner: Siliconised poly-coated paper
Colour: Transparent

AVERAGE PHYSICAL PROPERTIES:

	Y9460	Y9469	Y9473
Thickness:			
Adhesive	0.05mm (0.002 in.)	0.13mm (0.005 in.)	0.25mm (0.010 in.)
Liner	0.10mm (0.004 in.)	0.10mm (0.004 in.)	0.10mm (0.004 in.)
	Average values - not for specification purposes		
Adhesion to Steel:	120 N/100mm (110 oz./in.)	142 N/100mm (130 oz/in.)	164 N/100mm (150 oz/in.)
Relative High Temperature Operating Ranges:			
Continuous	149^{0}C (300^0 F)	149^{0}C (300^0 F)	149^{0}C (300^0 F)
Short	260^{0}C (500^0 F)	260^{0}C (500^0 F)	260^{0}C (500^0 F)
Relative Solvent Resistance:	Very High	Very High	Very High
U.V. Resistance	Excellent	Excellent	Excellent

Shelf Life of Tape
In roll form: 12 Months when stored in original cartons at 210 C (700 F) and 50% Relative humidity.

Shear Strength: 25.4mm area contact - stainless steel - 72 hour dwell.

"ISOTAC" Y9460, Y9469 and Y9473 ADHESIVE TRANSFER TAPES - Continued

AVERAGE PHYSICAL PROPERTIES: - Continued

Temp/Load		Minutes to Failure		
22^0 C (72^0 F)	1,000 g.	10,000	10,000	10,000
66^0 C (150^0 F)	1,000 g.	10,000	10,000	10,000
93^0 C (200^0 F)	1,000 g.	10,000	10,000	10,000
121^0 C (250^0 F)	1,000 g.	10,000	10,000	10,000
149^0 C (300^0 F)	500 g.	10,000	10,000	10,000
177^0 C (350^0 F)	500 g.	10,000	7,500	5,000
232^0 C (400^0 F)	50 g.	10,000	10,000	10,000

Peel Strength: 180^0 Peel, 72 hour dwell, room temperature conditions.

Surface:	N/100mm (oz/in)		N/100mm (oz/in)		N/100mm (oz/in.)	
Stainless Steel	120	(110)	142	(130)	164	(150)
Aluminium	115	(105)	142	(130)	164	(150)
Painted Metal	120	(110)	136	(125)	164	(150)
Rigid Vinyl	71	(65)	98	(90)	142	(130)
A.B.S.	66	(60)	77	(70)	98	(90)
Polycarbonate	71	(65)	98	(90)	142	(130)
Glass	77	(70)	120	(110)	164	(150)
Acrylic	77	(70)	98	(90)	142	(130)
Epoxy	88	(80)	131	(120)	153	(140)

GENERAL INFORMATION:

1. When properly laminated between two impervious materials, adhesive will resist mild acids and alkalies, most oils, grease, gasoline, kerosene, JP-4 fuel, hydraulic fluids, and other typical aromatic and aliphatic hydrocarbon and ketone solvents.

2. When properly laminated between two impervious materials and submitted to 100 hour immersion in 20^0 C (70^0 F) water. The adhesive is not affected.

3. Peel adhesion tests on tapes applied to glass, stainless steel and aluminium and subjected to 1,000 hours weather-ometer exposure showed no decrease in bond strength, and no degradation of the adhesive.

APPLICATION TECHNIQUES:

1. Adhesive bond strength is dependent upon the amount of adhesive-to-surface contact developed. Firm application pressure develops better adhesive contact and thus improves bond strength.

2. To obtain optimum adhesion, the bonding surfaces must be clean, dry and well unified.

3. Ideal tape application temperature range is 21^{0}C to 38^{0}C (21^{0}C to 38^0). Initial tape application to surfaces at temperatures below 10^{0}C is not recommended because adhesive becomes to firm to adhere readily. However, once properly applied, low-temperature holding is generally satisfactory.

4. Ultimate bond strength can be accelerated and increased by exposure of the bond to temperatures such as 66^0 C (150^0 F) for about one hour. Other heat ranges and time cycles may also be used to soften the adhesive. This provides better adhesive wetout on to the substrates.