



# FT T4020T

**FT T4020T** is part of a double-sided adhesive system especially designed for the assembly of membrane switches. The range consists of mounting tapes and spacer tapes of different thicknesses. All these products have superior stay-flat and die-cutting properties. They are available in roll and sheet form.

# **CONSTRUCTION & TYPICAL APPLICATION:**

- Consists of a 12µ polyester film coated on both sides with a solvent based pure acrylic adhesive. It offers high tack, high peel properties and high shear resistance.
- Protected by 2 moisture stable paper liners.
- Assembly of Membrane Switch Panels.



- Siliconised PE coated paper
- Solvent based pure acrylic adhesive
  PET film 12µ

  - Solvent based pure acrylic adhesive
- Siliconised PE coated paper

Adhesion with Substrates			
Metal / Aluminium	High	Acrylic / PET	Medium
Glass / Ceramics	High	Polystyrene	Medium
Painted Surface	High	PP / PE / PS	Medium
Wood / Board / Paper	Medium	Textile / Cotton	Medium
Soft PVC	Medium	Rubber / EPDM	Medium
Rigid PVC	Medium	Smooth Substrate	High
PC / ABS	High	Rough Substrate	Medium

Chemical Properties		
Copper corrosiveness	N.A.	Resistant
Chlorine contents (ppm)	< 100	Water
Sulphur contents (ppm)	< 100	Detergen

Resistant to:	
Water	Good
Detergents	Good
Dilute acids & alkalis	Good
Concentrated alkalis	Poor
Concentrated acids	Poor
Aliphatic hydrocarbons	Good
Ketones & esters	Fair
Chlorinated hydrocarbons	Poor
Aromatic Hydrocarbons	Poor

### SHELF LIFE:

• 2 years when stored at  $15/25^{\circ}$  C and  $\pm$  50% relative humidity.



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Electrical Properties			
Dielectric strength (Kv/mm)	At 23°C (50Hz)	380	DIN 40634
Surface resistivity (Ω)	At 23°C (50% RH)	> 10 <sup>14</sup> *	DIN 53482
Volume resistivity (Ω cm)	At 23°C	10 <sup>18</sup> *	DIN 40634
	At 23°C (50Hz)	3.3	DIN 40634
	At 23°C (1 KHz)	3.3	
	At 23°C (1MHz)	3.2	
Permittivity	At 0°C (50Hz)	3.3	
	At 50°C (50Hz)	3.3	
	At 100°C (50Hz)	3.3	
	At 150°C (50Hz)	3.6	
Power Factor	At 23°C (50Hz)	0.002	DIN 40634
	At 23°C (1 KHz)	0.005	
	At 23°C (1 MHz)	0.021	
	At 0°C (50Hz)	0.004	
	At 50°C (50Hz)	0.001	
	At 100°C (50Hz)	0.007	
	At 150°C (50Hz)	0.005	

\*Measured on a 12 $\!\mu$  thick foil.

ADHESIVE DATA	<b>Typical Values*</b>	Test Method
Quick Tack (N/25mm) on brushed stainless steel (ref. Nokoro 304 poli. N°4)	19	FTM 9
Peel 180° (N/25mm) on brushed stainless steel (ref. Nokoro 304 poli. N°4)		
- after 20 minutes	20	FTM 1
- after 24 hours	21	FTM 1
<b>Shear</b> on brushed stainless steel (ref. Nokoro 304 poli. N°4) 1kg – 25mm x 25mm (hours)	> 1000	FTM 8

CARRIER DATA	Typical Values*	Test Method
Thickness (µ)	12	ISO 534
Tensile (N/15mm)	MD 25 CD 27	DIN 53455
Elongation (%) (max)	MD 180 CD 180	DIN 53455

TEMPERATURE RESISTANCE	Typical Values*	Test Method
Minimum Application Temperature	+ 5°C	
End-use Temperature Range	- 40°C to + 180°C	

RELEASE LINER	Typical Values*	<b>Test Method</b>
White PE Coated Kraft Paper	100 gr/sqm, non printed	ISO 536
White PE Coated Kraft Paper	100 gr/sqm, printed in grey	ISO 536

THICKNESS	<b>Typical Values*</b>	Test Method
Carrier + Adhesive	90µ	ISO 534

\*Values given are typical and are not necessarily for use in specifications.

#### **APPLICATION TECHNIQUES:**

- It is essential with all pressure-sensitive tapes the application surface is clean, dry and free of grease and oil
- Bond strength is dependent upon the amount of adhesive-to-surface contact developed
- Note that different pressure, time and temperature on different (firm / rigid) surface achieves different performance

#### **IMPORTANT NOTICE:**

Information on the above characteristics is based upon tests we believe to be reliable. The values given are typical values that vary according to application conditions. The values are intended only as a source of information and are given without guarantee and do not constitute a warranty. Purchasers should independently determine prior to use the suitability of this material for their specific purposes. All Avery Dennison materials described herein are sold subject to Avery Dennison Conditions of Sales, a copy of which is available upon request.

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Performance

Tapes

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