



FT T4040 NBP

FT T4040 NBP 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 an acrylic adhesive. It offers high tack, high peel properties and high shear resistance.
- Protected by 2 calendered paper liners.
- Assembly of Membrane Switch Panels.



- Siliconised white paper
- Modified acrylic adhesive
- PET film 12µ
- Modified acrylic adhesive
- Siliconised yellow paper

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

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

Resistant to:	
Water	Good
Detergents	Good
Dilute acids & alkalis	Good
Concentrated alkalis	Poor
Concentrated acids	Poor
Aliphatic hydrocarbons	Fair
Ketones & esters	Poor
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 ¹⁴ *	DIN 53482
Volume resistivity (Ω cm)	At 23°C	10 ¹⁸ *	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	
	At 23°C (50Hz)	0.002	DIN 40634
	At 23°C (1 KHz)	0.005	
	At 23°C (1 MHz)	0.021	
Power Factor	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	Typical Values*	Test Method
Quick Tack (N/25mm) on brushed stainless steel (ref. Nokoro 304 poli. N°4)	16	FTM 9
Peel 180° (N/25mm) on brushed stainless steel (ref. Nokoro 304 poli. N°4)		
- after 20 minutes	25	FTM 1
- after 24 hours	29	FTM 1
Shear on brushed stainless steel (ref. Nokoro 304 poli. N°4) 1kg – 25mm x 25mm (hours)	100	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	+ 10°C	
End-use Temperature Range	- 40°C to + 90°C	

RELEASE LINER	Typical Values*	Test Method
Yellow Silicone Paper	90 gr/sqm	ISO 536
White Silicone Paper	90 gr/sqm	ISO 536

THICKNESS	Typical Values*	Test Method
Carrier + Adhesive	90µ	ISO 534

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

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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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