

NITOFLON™

MPS Series

Outline

NITOFLON™ MPS series are polytetrafluoroethylene (PTFE) film products with excellent heat resistance, releasability, and flexibility.

By using it as a release film in the resin encapsulation process of semiconductor chips, it helps reducing frequency of cleaning molds, the amount of solvent used, and extending the life of molds.

Structure



Fig.1 Structure

Features

- Continuous use is possible in a wide temperature range of from -100°C to 260°C (recommended value), and even it can be used at higher temperatures for short periods of time.
- Excellent releasability (non-adhesiveness) and can be easily released even if it comes into contact with sticky substances.
- Available product lineups with different expansion and contraction characteristics for heat (longitudinal shrinkage, horizontal shrinkage, etc.)

Applications

- Release film for resin sealing process of semiconductor chips

Properties

Table 1 General Properties

Item	Unit	MPS-10	MPS-11	MPS-13	Test method	
Thickness	mm	0.05	0.05	0.05	Dial gauge	
Tensile strength	MD	MPa	50	58	79	-
	TD		33	38	34	
Elongation	MD	%	300	258	120	-
	TD		310	351	335	
Coefficient of linear expansion	MD	10 ⁻⁶ /°C	0	33	-527	-
	TD		333	186	219	
Surface roughness (Ra)	um	0.27	0.20	0.24	JIS B 0601	
Adhesive tape peel strength	N/19mm	0.9	0.8	0.8	NO31B 180°Peeling strength	
melting point	°C	327				
Usable temperature (Continuous use)	°C	260				
Features	—	standard	Low linear expansion	high strength high heat shrink		

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