

HM6642F

PRODUCT DESCRIPTION

HM6642F provides the following product characteristics:

Technology	Polyurethane Hot Melt
Chemical Type	Reactive Polyurethane
Appearance (uncured)	Light yellow to amber solid
Components	One component -
	requires no mixing
Viscosity	Medium
Cure	Solidification and Moisture
Application	Bonding

HM6642F is a reactive hot-melt adhesive based on polyurethane prepolymers.It's fluorescent and designed for robotic dispensing and has a relatively long open time. Immediately after solidifying in the bond line, the adhesive provides good initial strength. Then the secondary moisture cure cross-links the bonds for excellent elongation and structural durability. Fully cured product does not remelt.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity @ 25 °C	1.1
Viscosity, Brookfield - Thermosel, 100 °C, m	ıPa·s (cP):

Spindle 27	3,500 to 7,500

TYPICAL CURING PERFORMANCE

Open Time @ 25 °C, minutes, 1 mm bead	<4	
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Application Temperature, °C 90 to 110 Cure Speed vs. Time

The graph below shows the cross bond tensile strength developed over time at 22 $^{\circ}C$ / 50 $^{\circ}KH$ on the substrates noted.



Physical Properties: Glass Transition Temperature, ISO 11359-2, Coefficient of Thermal Expansion, ISO 11359-2, K-1 :	°C -3	9
Pre Tg	130	×10 ⁻⁶
Post Tg	340	×10 ⁻⁶
Shore Hardness, ISO 868, Durometer D Coefficient of Thermal Conductivity ASTM 1530, W/(m-K)	30 E 0.	21
Elongation, at break, ISO 527-2, % Tensile Strength, ISO 527-2	86 N/mm² (psi)	i0 >8 (>1,225)
Tensile Modulus, ISO 527-2	N/mm²	91
Electrical Properties:	(psi)	(13,225)
Dielectric Constant , IEC 60250:		
@ 1,000 KHz		3.48

TYPICAL PERFORMANCE OF CURED MATERIAL

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ured for 7 days @ 22 °C Lap Shear Strength, ISO 4587:		
Aluminum (anodised)	N/mm²	7.2
	(psi)	(1,045)
PC/ABS	N/mm²	4.8
	(psi)	(695)

Cross bond performance is determined by stressing a bonded assembly with the application of force perpendicular to the bond area and to the major axis of the test specimen.

Cro	ss bond tensile loading strength:		
A	luminum (anodised)	N/mm² (psi)	4.8 (695)
P	'C/ABS	N/mm²	5.8
		(psi)	(840)

TYPICAL ENVIRONMENTAL RESISTANCE

Cross bond tensile loading strength: Anodized Aluminum

After 7 days @ 85℃ / 85% BH	N/mm² 3.9
	(psi) (570)
After Thermal Cycling*	N/mm² 7.2
After Heat Shock**	(psi) (1,040)
Arter fleat shock	N/mm ² 6.0
	(psi)
	(865)