

NANOSTRENGTH®

A NEW CLASS OF ACRYLIC BLOCK COPOLYMERS FOR THERMOPLASTIC ADHESIVE APPLICATIONS

- Nanostrength® MAM
- Nanostrength® functionalized MAM
- High transparency and UV resistance
- High creep and temperature resistance
- Soft block intrinsically tacky (easy or even no need to formulate)
- Soluble in many solvents
- Functionalizable to achieve unmet properties like reversible water absorption
- Removable applications
- High technical optical applications
- Medical applications, humid medium

NANOSTRENGTH® MAM PRODUCT RANGE

Grade	Form	% BA	Functional groups	Tg soft block, °C (max G'")	G' @ 25°C, kPa	G' @ 150°C, kPa	G' – G' " cross T °C	Suggested uses		
								Hot melt pure	Hot melt formulated	Solvent pure
M75	Sticky granules	70%	/	-42	350	60	> 250	X	X	X
M75M	Sticky granules	70%	Carboxylic acid	-42	330	65	>250	X	X	X
M85	Rod / mass	85%	/	-41	130	2	137	X	X	X
M85M	Rod / mass	85%	Carboxylic acid	-42	130	5	160-190	X	X	X

Nanostrength® SAS (PS-PABu-PS) can also be proposed (adhesion onto PS and Polyolefins).
New functionalised Nanostrength® MAM including OH groups in the end block are under development.



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ADHESIVE PROPERTIES OF THE NEAT VERY SOFT NANOSTRENGTH® MAM

Measurement	FINAT test method	M85	M85M	M75M
Weight (g/m ²)	FTM 12	21.05 (2)	22.6 (1.2)	22.34 (2.3)
180° Peel (20mn), N/25 mm	FTM 1	12.42 (0,6)	13.9 (0.3)	9.84 (0,2)
Type of failure		Clean plate	Clean plate	Clean plate
180° Peel (24h), N/25 mm	FTM 1	17.12 (0.4)	18.1 (0.6)	10.63 (0,6)
Type of failure		Clean plate	Clean plate	Clean plate
Loop Tack (N)	FTM 9	6.9	7.2	3.45
Lap shear, 25x25 mm, 1 kg (mn)	FTM 8	> 11 000	> 11 000	> 11 000
SAFT 25x25 mm, 1 kg (°C)	ASTM 4498	85.6	94.1	166

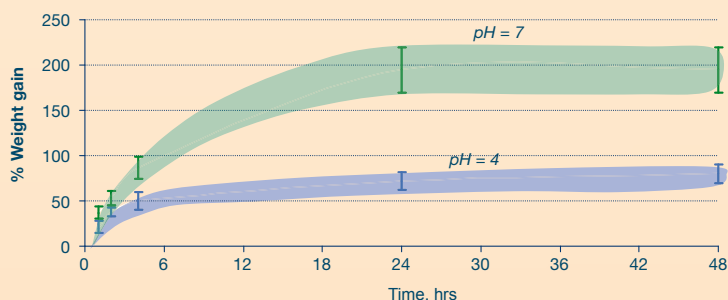
Coating on PET film from acetone solution (35%), 70 µm blade. Adhesion evaluated on stainless steel.

NANOSTRENGTH® M1H: A UNIQUE WATER ABSORBANT ADHESIVE

Measurement	FINAT test method	Nanostrength® M1H
Weight (g/m ²)	FTM 12	19.2 (1)
180° Peel (20mn)	FTM 1	8.6 (1.6)
Type of failure		Clean plaque
180° Peel (24h)	FTM 1	10.85 (1.4)
Type of failure		Clean plaque
Loop Tack (N)	FTM 9	5.20 (0.9)
Lap shear, 25x25 mm, 1 kg (mn)	FTM 8	> 11 000 mn
SAFT 25x25mm, 1 kg (°C)	ASTM 4498	82.4 (5.6)

Dissolution in acetone, enduction on PET film, adhesion to stainless steel.

Typical water absorption rates of Nanostrength® M1H grade



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