

DOMAMID® FLY

New grades of polyamides based on aluminium silicate nano particles have been introduced in the **DOMAMID®** specialty range. A very low dosage of nano-clay confers to the final item, dimensional stability and absence of warpage, characteristics that until today could be achieved only by adding higher percentages of mineral filler to the polymer matrix (30-40 %). The innovative technology, that allows perfect exfoliation of the nano-clay in the polymer matrix, has led to outstanding properties.

MATERIAL PROPERTIES

Improved gas barrier properties

Improved mechanical and thermal performance

Excellent aesthetics with no painting

Low loading levels for increased stiffness with no impact on specific gravity

High dimensional stability (no warpage)

These compounds produce lightweight parts with dramatic enhancements in heat distortion temperature and stiffness and also provides excellent barrier properties against water & moisture. The thermal and mechanical performance, enhanced by dissolving the nano-particles in situ, are confirmed by TEM (Transmission Electronic Microscope) analysis.

STANDARD PRODUCT LINE			DOMAMID® FLY 6SLV 080 NC04	DOMAMID® FLY 6SLV 090 NC04	
	Method	Condition	Unit	Values	Values
Density	ISO 1183		g/cm ³	1,13	1,12
Tensile Modulus	ISO 527	1 mm/min	MPa	4100	4350
Tensile Stress at Break	ISO 527	50 mm/min	MPa	94	68
Tensile Strain at Break	ISO 527	50 mm/min	%	4,9	2,1
Flexural Modulus	ISO 178	2 mm/min	MPa	3600	3700
Flexural Strength	ISO 178	2 mm/min	MPa	136	115
Charpy Notched	ISO 179/IeA	+ 23 °C	kJ/m ²	3	1,5
Charpy Unnotched	ISO 179/IeU	+ 23 °C	kJ/m ²	70	20
HDT-A	ISO 75	1,80 MPa	°C	109	128
HDT-B	ISO 75	0,45 MPa	°C	170	193
Flammability	UL94	0,8 mm	class	HB	HB

DOMAMID® FLY

The new technology allows the final item savings greater than 20 % and opens up new chances in the E-mobility field. There are hundreds of nano-particles with revolutionary technical properties under study. Our extraordinary journey is only at the beginning ...

DOMAMID® FLY shows good chemical resistance to several chemical reagents.

CHEMICAL RESISTANCE

ORGANIC ACIDS

Oleic acid

ALCOHOL

Allyl alcohol, Amyl alcohol, Ethyl alcohol

SALT SOLUTION

Aluminium sulphate, Barium chloride, Magnesium chloride, Potassium carbonate, Silver nitrate, Sodium carbonate, Sodium chloride, Sodium sulfate

ORGANIC SUBSTANCES

Acetone, Benzene, Butane, Butyl phthalate, Carbon tetrachloride, Ethyl ether, Ethylen glycol, Formaldehyde, Heptane, Hexane, Methyl ethyl keton, Mineral oil, Naphthaline, Petroleum ether, Tetrahydrofuran, Tetraline, Toluene, Vinyl chloride

DOMAMID® FLY APPLICATIONS

