RILSAN®
FINE POWDERS

TECHNICAL DATA SHEET

RILSAN® PA11 ESY NAT MAC

POLYAMIDE 11 POWDER

RILSAN® fine powders are specialty polyamide powders obtained from renewable resources. RILSAN® ESY range is designed for coating metal parts using the electrostatic spraying process. They provide superior protection against wear, impact, corrosion, chemicals as well as graffiti. Please consult Arkema literature for application method and recommendations.
RILSAN® ESY NAT MAC provides good electrical insulation, even at low thickness. It can be used in electrical applications such as busbar coatings.

TYPE

PA11

POTENTIAL APPLICATIONS

- Industrial coating

DELIVERY FORM

- Powder

TRANSFORMATION PROCESSES

- Electrostatic spraying

ADDITIVES

- Heat Stabilized

MECHANICAL PROPERTIES

PROPERTIES	TYPICAL VALUE*	UNIT	TEST STANDARD
Hardness, shore D, 23°C (73°F)	- / 71		ISO 868
Persoz hardness, 23°C (73°F)	- / 270		ISO 1522
Abrasion resistance, Wheel CS 17, load 1 kg, 1000 cycles	- / 25	mg	ISO 9352

* DRY / COND
DRY: Dry As Molded (DAM) if pellet / Dry if powder.
COND: Conditionned.

THERMAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Vicat softening temperature, 50N at 50°C/h	181	°C	ISO 306
Melting temperature, 10°C/min	183-188	°C	ISO 11357-1/-3

ELECTRICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Dielectric strength, 23°C (73,4°F)	50	kV/mm	IEC 60243-1
Comparative tracking index, 23°C (73,4°F)	> 600 V		IEC 60112
Dissipation factor, 23°C (73,4°F)	< 0.01		ASTM D150
Dielectric constant, 23°C (73,4°F)	3.7		ASTM D150
Surface resistivity, 23°C (73,4°F)	2.4E+14	ohm/sq	IEC 62631-3-2

RILSAN® PA11 ESY NAT MAC

OTHER PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Covering efficiency (100 µm)	0.12	kg/m²	Internal Arkema
Salt spray test	Good adhesion after 2000 hours		ISO 9227
Coating density, 20°C (68°F)	1.25	g/cm³	ISO 1183-1
Apparent density, non compacted	0.44	g/cm³	ISO 1068
Apparent density, compacted	0.62	g/cm³	ISO 1068
Particle Size Distribution (PSD), median particle size (D50)	30	µm	ISO 13320
Particle Size Distribution (PSD), fine particles (< 20 µm)	20	%	ISO 13320
Particle Size Distribution (PSD), coarse particles (> 100 µm)	1	%	ISO 13320
Water absorption, after 24h at 23°C (73°F) / Water	≤ 1	%	ISO 62

SHELF LIFE

Two years from the date of delivery, when stored properly (sealed bags, appropriate moisture, UV protection and temperature). For any use above this limit, please refer to our technical services.

SPECIAL CHARACTERISTICS

- Bio-based

REGIONAL AVAILABILITY

World

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