

### Powder ESY NAT MAC - Rilsan® POLYAMIDE 11 (PA11) 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.

PROPERTIES	VALUE	UNIT	TEST STANDARD
THERMAL PROPERTIES			
Vicat Softening Temperature, 50°C/h 50N	181	°C	ISO 306
	358	°F	
ELECTRICAL PROPERTIES			
Dielectric Constant, 1 kHz	3.7	-	ASTM D150
Dissipation Factor, 100 kHz	≤0.01	-	ASTM D150
Surface Resistivity, 73 °F	2.4E14	Ohm per square	ASTM D257
Dielectric (Electric) Strength	50	kV/mm	IEC 60243-1
	1270	kV/in	
Comparative Tracking Index	600	-	IEC 60112
POWDER PROPERTIES			
Color	Natural	-	-
Particle Size Distribution, ≤ 20µm	20	%	ISO 13320
Particle Size Distribution, ≥ 100µm	1	%	ISO 13320
Particle Size Distribution, Median Size	30	µm	ISO 13320
	0.00118	in	
Melting Temperature	183 - 188	°C	ISO 1218
	361 - 370	°F	
Vicat Point	181	°C	ISO 306
	358	°F	
Non Tapped Density	0.44	-	ISO 1068
Tapped Density	0.62	-	ISO 1068
POWDER COATING PROPERTIES			
Recommended Coating Thickness	80 - 120	µm	-
	0.00315 - 0.00472	in	
Covering Efficiency , 100µm	0.12	kg/m²	-
Specific Gravity of Coating, 20°C	1.25	-	ISO 1183
Persoz Hardness	270	-	ISO 1522

# RILSAN®

## FINE POWDERS

# ESY NAT MAC

Pencil Hardness	B	-	ECCA T4
Shore D Hardness	71	-	ISO 868
Water Absorption, 24h	≤1	%	ISO 62-1
Abrasion Resistance, Wheel CS 17, load 1 kg, 1000 cycles	25	mg	ISO 9352
Dielectric Strength	50	kV/mm	IEC 60243-1
	1270	V/mil	
Dissipation Factor, 25 °C, 1MHz	0.01	-	ASTM D150
Dielectric Constant	3.7	-	ASTM D150
Surface Resistivity	2.4E14	W	ASTM D257
Fire Resistance on coated panel	V-0	-	UL 94
Salt spray test according to surface preparation recommended by ARKEMA	Good adhesion after 2000 hours	-	ISO 9227

## MAIN APPLICATIONS

- Metal Coating
- General Purpose
- Electrical applications - Busbars

## PACKAGING

This grade is delivered in 20kg bag.

## SHELF LIFE

Two years from the date of delivery. For any use after this limit, please refer to our technical services.

<b>PROCESSING</b> Coating, Electrostatic Spray	
<b>DELIVERY FORM</b> Powder	
<b>REGIONAL AVAILABILITY</b> North America, Europe, Asia Pacific, South and Central America, Near East/Africa	