



Conductive Polyamide Innovation for Electrostatic Painting

TECHNYL® A 238P5 M25



Engineering Plastics

CHALLENGING BOUNDARIES



Conductive Polyamide Innovation

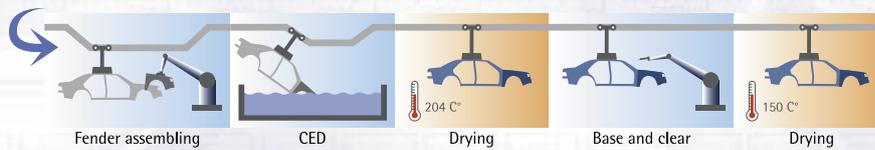
Rhodia has developed expertise in innovative conductive technologies, creating new products for automobile exterior body panels. Thanks to these innovative solutions, purely polyamide matrix based, an outstanding combination of stable conductivity with excellent impact and high thermal performance have been developed to sustain e-coat processes. This new technology also offers an excellent surface aspect with easy processing, giving exterior body panels superior class-A surface aspect.



Designed to meet External Body Panel requirements

- On-line painting at high e-coat temperatures (up to 210°C)
- Weight reduction vs metal
- Mechanical resistance: impact strength at low temperatures, stiffness
- In-use quality: Class-A surface aspect, dimensional stability
- Excellent dent resistance
- Recyclability

On-line painting

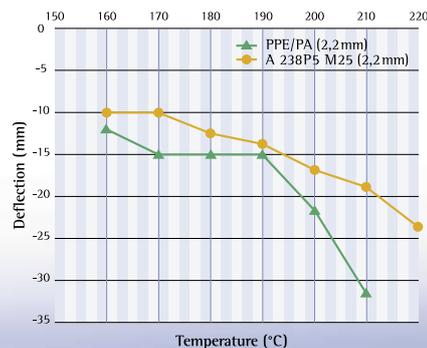
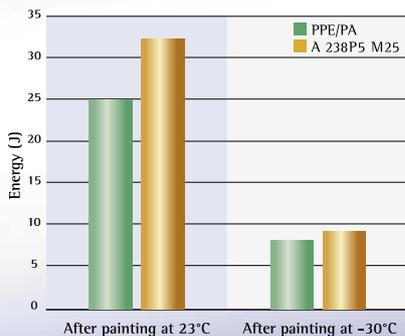


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E-coat paint solution

- Electrostatic paintability
A unique technology for optimised and stable conductivity
- Excellent paint adhesion
Very positive adhesion test (no blisters nor bubbles)
- Excellent thermal resistance
Lower deflection vs. temperature up to 220°C (Sag test)





Excellent Mechanical Performance

- High mechanical resistance at elevated temperatures
High stiffness up to 210°C
- Excellent impact resistance of painted parts, included at low temperature
- Low shrinkage
- Excellent dimensional stability



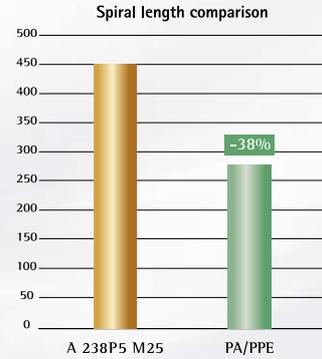
Easy Processing

- Fast cycle time
- High flowability
- Universal or PA injection moulding screw



Excellent Surface Aspect

- Class-A surface quality
- Able to match metal car body panels



	Distinctness of image	Long Wave	Short Wave
A 238P5 M25	80 to 90	< 15	< 20
METAL	70 to 90	< 20	< 25

PROPERTIES	STANDARDS	UNIT	TECHNYL® A 238P5 M25 Black 5N	
PHYSICAL				
Density	ISO 1183-A	g/cm ³	1.26	
Water absorption (24h at 23°C)	ISO 62	%	1.77	
Melting temperature	ISO 11357	°C	260	
Coefficient of linear thermal expansion parallel (23°C to 85°) C	ISO 11359	E-5/°C	7.5	
Heat deflection temperature under load 0.45 MPa	ISO 75/Af	°C	205	
Mould shrinkage	Direction //	RHODIA-EP	%	1.5
	Direction T	RHODIA-EP	%	1.7
MECHANICAL				
TENSILE	Strength at break	ISO 527 type 1 A	MPa	60 / 45
	Strain at break	ISO 527 type 1 A	%	10 / 30
	Tensile Modulus	ISO 527 type 1 A	MPa	3200 / 2000
FLEXURAL	Strength at break	ISO 178	MPa	
	Flexural Modulus	ISO 180	MPa	3100 / 1850
IMPACT	Izod notched	ISO 180/1A	kJ/m ²	
	Charpy notched	ISO 179/1eA	kJ/m ²	10 / 16
	Charpy unnotched	ISO 179/1eU	kJ/m ²	120 / 180

*d.a.m = dry as moulded / cond. = conditioned according ISO 1110

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- the extent of our knowledge of the products as listed,
- the tests and experiments carried out in our laboratories.

It is to be used only as an indication and shall not be construed in any way as a formal commitment or warranty on our part. Compliance of our products with your conditions of application or use can only be determined pursuant to your own prior appropriate test.

Edited by:

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