RILSAMID®

TECHNICAL DATA SHEET

RILSAMID® ASR 13

POLYAMIDE 12 PELLET

RILSAMID® ASR 13 a polyamide 12 compound. This black reinforced grade is designed for injection molding & is used to produce automotive fittings & quick connectors, the incorporation of carbon fiber leading to a product with same rigidity as a 30% glass fiber reinforced grade & electrostatic discharge (ESD) performance for conductive parts.

Designation : ISO 16396 - PA12, CF15, M1G1HL, C16-080

TYPE

PA12-CF15

MAIN APPLICATIONS

- industry - others
- industry - distribution
- auto - fluid connectors
- heavy truck - air brake connectors
- extrusion - technology providers

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Injection Molding

ADDITIVES

- Heat Stabilized
- Light Stabilized
- Release agent

RHEOLOGICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Melt volume flow rate (MVR), 235°C / 5 kg (455°F / 11 lb)	10	cm^3/10min	ISO 1133
Shrinkage, parallel (t+24h)	0.2	%	ISO 294-4
Shrinkage, normal (t+24h)	0.5	%	ISO 294-4

MECHANICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Flexural modulus, 23°C (73°F)	- / 7200	MPa	ISO 178
Tensile modulus, 23°C (73°F)	9600 / 9000	MPa	ISO 527-1/-2
Stress at break, 23°C (73°F)	- / 110	MPa	ISO 527-1/-2
Strain at break, 23°C (73°F)	- / 4	%	ISO 527-1/-2
Charpy unnotched impact strength, 23°C (73°F)	45 / 46	kJ/m2	ISO 179 1eU
Charpy unnotched impact strength, -30°C (-22°F)	47 / 48	kJ/m2	ISO 179 1eU
Charpy notched impact strength, 23°C (73°F)	- / 11	kJ/m2	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	8 / 7	kJ/m2	ISO 179 1eA

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

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THERMAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Melting temperature, 10°C/min	178	°C	ISO 11357-1/-3
Thermal degradation temperature, Under air at 10°C/min (1%_wt_Loss)	223	°C	ISO 11358-1
Thermal degradation temperature, Under nitrogen at 10°C/min (1%_wt_Loss)	223	°C	ISO 11358-1

ELECTRICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Surface resistivity, 23°C (73,4°F)	- / 1.0E+05	ohm/sq	IEC 62631-3-2

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

OTHER PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Water absorption, at equilibrium at 23°C (73°F) / 50%RH	0.6	%	ISO 62
Density, 23°C (73°F)	1.08	g/cm³	ISO 1183-1
Water absorption, at equilibrium at 23°C (73°F) / Immersion	1.5	%	ISO 62

PACKAGING

Available packaging:
- 25 kg / 55 lb bags
- 454 kg / 1000 lb rigid containers

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.

PROCESSING CONDITIONS:

- Typical melt temperature (Min / Recommended / Max) - Injection Molding: 240°C / 260°C / 280°C (465°F / 500°F / 535°F)
- Typical mold temperature - Injection molding: 40-90°C (105-195°F)
- Drying time and temperature: 80-90°C (175-195°F) / 4-6 hours

SPECIAL CHARACTERISTICS

- Electrostatic discharge (ESD)

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