

## 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	VALUE	UNIT	TEST STANDARD
Melt volume flow rate (MVR), 235°C / 5 kg (455°F / 11 lb)	10	cm <sup>3</sup> /10min	ISO 1133
Shrinkage, Parallel (t+24h)	0.2	%	ISO 294-4
Shrinkage, Normal (t+24h)	0.5	%	ISO 294-4

## MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	UNIT	TEST STANDARD
Charpy unnotched impact strength, 23°C (73°F)	45 / 46	kJ/m <sup>2</sup>	ISO 179 1eU
Charpy unnotched impact strength, -30°C (-22°F)	47 / 48	kJ/m <sup>2</sup>	ISO 179 1eU
Tensile modulus, 23°C (73°F), 1 mm/min	9600 / 9000	MPa	ISO 527-1/-2
Charpy notched impact strength, 23°C (73°F)	- / 11	kJ/m <sup>2</sup>	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	8 / 7	kJ/m <sup>2</sup>	ISO 179 1eA
Flexural modulus, 23°C (73°F)	- / 7200	MPa	ISO 178

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

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## THERMAL PROPERTIES

PROPERTIES	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	DRY / COND VALUE*	UNIT	TEST STANDARD
Surface resistivity, 23°C (73°F)	- / 100000	Ohm/sq	IEC 62631-3-2

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

## OTHER PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Moisture absorption, At equilibrium at 23°C (73°F) / 50%HR	0.6	%	ISO 62
Water absorption, 23°C (73°F), immersion, equilibrium	1.5	%	ISO 62
Specific gravity, 23°C (73°F)	1.08	g/cm <sup>3</sup>	ISO 1183-1

## 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: 250°C / 270°C / 290°C (480°F / 520°F / 555°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)