

**RILSAN®****HT CESV BLACK P010 TL****PA11/10T-I,,EHL,C16-010**

**Rilsan® HT CESV BLACK P010 TL** is a flexible polyphthalamide produced from a renewable source, typical used to replace metal in tubing for high-temperature automotive, transportation and other demanding technical applications.

According to ASTM D6866, the biobased carbon content is measured at 48%.

PROPERTIES	DRY / COND	UNIT	TEST STANDARD
<b>RHEOLOGICAL PROPERTIES</b>			
Melt Volume-Flow Rate	1.9 / *	cm <sup>3</sup> /10 min	ISO 1133
Temperature	300 / *	°C	-
	572 / *	°F	
Load	5 / *	kg	-
	11 / *	lb	
<b>MECHANICAL PROPERTIES</b>			
Tensile Modulus	- / 1015	MPa	ISO 527-1/-2
	- / 147000	psi	
Yield Stress	- / 30	MPa	ISO 527-1/-2
	- / 4350	psi	
Yield Strain	- / 5	%	ISO 527-1/-2
Nominal Strain at Break	- / >50	%	ISO 527-1/-2
Shore D Hardness, after 15 s	66 / *	-	ISO 868
Charpy Impact Strength, +23°C	- / No Break	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy Impact Strength, -30°C	- / No Break	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy Notched Impact Strength, +23°C	- / 84	kJ/m <sup>2</sup>	ISO 179/1eA
	- / 40	ftlb/in <sup>2</sup>	
Charpy Notched Impact Strength, -30°C	- / 16	kJ/m <sup>2</sup>	ISO 179/1eA
	- / 7.61	ftlb/in <sup>2</sup>	
<b>THERMAL PROPERTIES</b>			
Melting Temperature, 10°C/min	260 / *	°C	ISO 11357-1/-3
Glass Transition Temperature, 10°C/min	82 / *	°C	ISO 11357-1/-2
	180 / *	°F	
Temp. of Deflection Under Load, 1.80 MPa	66 / *	°C	ISO 75-1/-2
	151 / *	°F	

# RILSAN®

## HT CESV BLACK P010 TL

Temp. of Deflection Under Load, 0.45 MPa	82 / *	°C	ISO 75-1/-2
	180 / *	°F	

### OTHER PROPERTIES

%Bio-Based	48	-	ASTM D6866
Density	1050 / -	kg/m <sup>3</sup>	ISO 1183
	1.05 / -	g/cm <sup>3</sup>	

### MAIN APPLICATIONS:

- Thermoplastic lines for automotive & transportation applications such as high temperature air/vacuum
- Hydraulic and pneumatic lines
- aggressive media and oil management systems
- cooling and selective catalyst reduction lines etc

### PACKAGING:

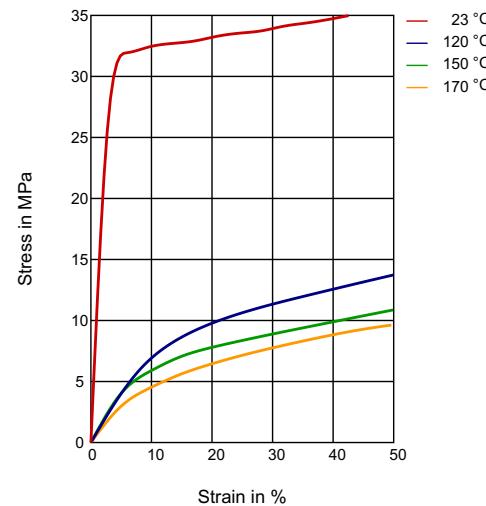
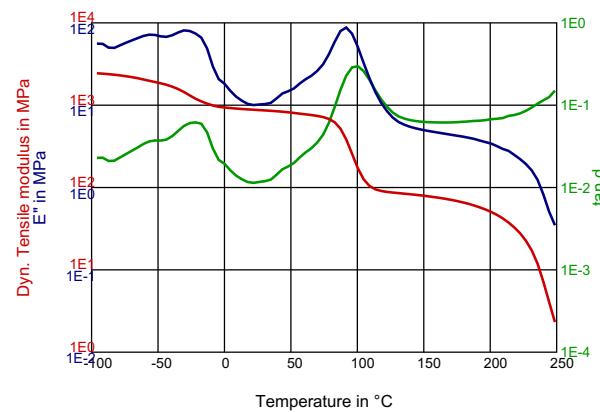
This grade is delivered dried in sealed packaging (25 kg bags) ready to be processed.

### SHELF LIFE:

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

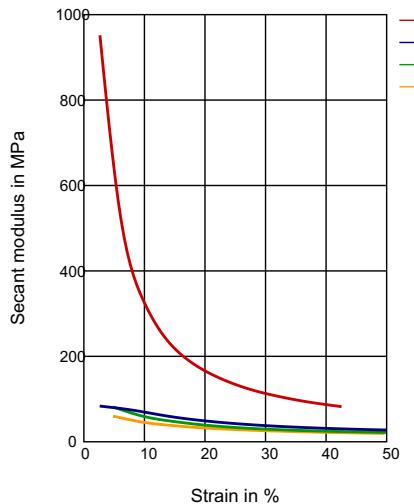
### DIAGRAMS

#### DYN. TENSILE MODULUS-TEMPERATURE STRESS-STRAIN



# RILSAN® HT CESV BLACK P010 TL

## SECANT MODULUS-STRAIN



### Processing conditions :

- Typical melt temperature (Min / Recommended / Max) : 270°C / 280°C / 290°C.
- Drying time and temperature (only for bags opened for more than two hours) : 8 - 12 hours at 70 °C.

<b>PROCESSING</b> Profile Extrusion, Other Extrusion	Headquarters: Arkema France 420 rue d'Estienne d'Orves 92705 Colombes Cedex France T +33 (0)1 49 00 80 80 hpp.arkema.com
<b>DELIVERY FORM</b> Pellets	Arkema Inc. – High Performance Polymers 900 First Avenue King of Prussia, PA 19406 Tel.: +1 610 205 7000 hpp.arkema.com
<b>SPECIAL CHARACTERISTICS</b> Bio-Based, Heat Stabilized, Light Stabilized	Arkema Inc. – High Performance Polymers 900 First Avenue King of Prussia, PA 19406 Tel.: +1 610 205 7000 hpp.arkema.com
<b>REGIONAL AVAILABILITY</b> North America, Europe, Asia Pacific, South and Central America, Near East/Africa	Arkema Inc. – High Performance Polymers 900 First Avenue King of Prussia, PA 19406 Tel.: +1 610 205 7000 hpp.arkema.com

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