



Technical Information

**Thermoplastic  
Polyurethane  
Elastomers (TPU)**

**Elastollan® –  
Electrical  
Properties**

 **BASF**

The Chemical Company

# Elastollan – electrical Properties

Property	Unit	Standard	Elastollan							
			C 60 AW	C 78 A	C 80 A	C 85 A	C 90 A	C 95 A	C 59 D	C 60 D
Comparative tracking index CTI		IEC 60112	600	600	600	600	600	600	600	600
Electrical strength $E_B1$	kV/mm	IEC 60243-1 Elektrode configuration K 20, K 20 in transformer oil Thickness of specimen 1 mm	22	23	23	23	24	26	28	28
Surface resistivity $\sigma_e$	$\Omega$	IEC 60093 Thickness of specimen 1 mm	$10^{13}$	$10^{13}$	$10^{13}$	$10^{13}$	$10^{14}$	$10^{15}$	$10^{15}$	$10^{15}$
Volume resistivity $P_e$	$\Omega \cdot \text{cm}$	IEC 60093 Thickness of specimen 1 mm	$10^{10}$	$10^{11}$	$10^{11}$	$10^{11}$	$10^{11}$	$10^{11}$	$10^{12}$	$10^{13}$
Relative permittivity $\epsilon_r$ 100 Hz 1 MHz		IEC 60250 Thickness of specimen 1 mm	7,0 6,5	7,0 6,0	7,0 6,0	7,0 6,0	7,0 5,5	7,0 5,0	6,5 5,0	6,0 5,0
Dissipation factor $\tan \delta$ 100 Hz 1 MHz		IEC 60250 Thickness of specimen 1 mm	0,20 0,05	0,05 0,07	0,05 0,07	0,05 0,07	0,05 0,07	0,05 0,07	0,04 0,06	0,04 0,06

*Pre-treatment of specimen:  
20hrs/100 °C annealed; conditioned  
14 d in standard atmosphere  
(23 °C/50% relative humidity) and  
then measured.*

*The table provides only representa-  
tive values and not the suppliers  
specification values.*

C 64 D	C 74 D	R 1000	R 2000	R 3000	1175 AW	1180 A	1185 A	1185 A FHF	1190 A	1154 D	1164 D	1174 D
600	600	600	600	600	600	600	600	600	600	600	600	600
31	31	35	35	35	25	35	35	26	35	36	36	37
10 <sup>15</sup>	10 <sup>15</sup>	10 <sup>15</sup>	10 <sup>15</sup>	10 <sup>15</sup>	10 <sup>14</sup>	10 <sup>15</sup>	10 <sup>15</sup>	10 <sup>14</sup>	10 <sup>15</sup>	10 <sup>15</sup>	10 <sup>15</sup>	10 <sup>15</sup>
10 <sup>15</sup>	10 <sup>15</sup>	10 <sup>11</sup>	10 <sup>11</sup>	10 <sup>11</sup>	10 <sup>11</sup>	10 <sup>11</sup>	10 <sup>12</sup>	10 <sup>11</sup>	10 <sup>12</sup>	10 <sup>13</sup>	10 <sup>14</sup>	10 <sup>15</sup>
6,0 4,5	5,0 4,0	7,0 6,0	6,5 5,0	6,0 5,0	8,0 6,5	8,0 6,0	8,0 5,5	7,5 5,5	7,5 5,5	6,5 4,5	6,0 4,5	5,0 4,0
0,04 0,05	0,03 0,04	0,03 0,06	0,03 0,06	0,03 0,06	0,07 0,14	0,03 0,11	0,03 0,10	0,04 0,10	0,04 0,09	0,05 0,06	0,04 0,05	0,03 0,04

## Elastogran is polyurethanes

With top quality products, a reputation for good customer service and continuous progress and development, Elastollan has secured a firm position in numerous markets.

We want to share our know-how and experience to contribute to your own success: The versatile Elastollan is the ideal material to fulfill your requirements.

For further information, the following detailed brochures are available upon request:

- Thermoplastic Polyurethane Elastomers: Elastollan
- Elastollan – Product Range
- Elastollan – Material Properties
- Elastollan – Processing Recommendations
- Elastollan – Chemical Resistance

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