

## Elastollan® Safety

# for performance and design

### Elastollan® for safety shoe footwear applications

Elastollan® products have excellent mechanical properties like mechanical strength, abrasion resistance, a broad hardness range and a good slip resistance. Therefore, they are used for safety shoe soles produced by injection molding or casted within PU direct injection process. Our tailor-made Elastollan® portfolio for safety shoes is equipped with antistatic agents to achieve ESD requirements according to safety shoe standards.

The Elastollan® product range offers an enormous possibility of design freedom. The color and the shape of the sole could be chosen depending on the shoe design, even for multicolor outsoles. Additionally, due to well-defined and tailor-made sole geometries, good slip resistance could be achieved. The adhesion between Elastollan® and Elastopan® PU systems offers designers an outstanding balance of comfort and safety.

#### Properties of basic Elastollan® grades

Grade*	soft 45 A 12	NEW BCF 55 A 12 PM ESD	565 A 12 ESDM
Grade	3017 40 77 12	BOT GO X 12 T IN LOD	000 X 12 E05IN
Hardness [Shore A] DIN ISO 7619-1 (3s)	47	54	63
Density [g/cm³] DIN EN ISO 183-1-A	1.18	1.18	1.22
Tensile strength [MPa] DIN 53504-S2	30	30	30
Elongation at break [%] DIN 53504-S2	900	1,100	850
Tear strength [N/mm] DIN ISO 34-1Bb	35	40	40
Abrasion loss [mm] DIN ISO 4649-A	60	50	60
Volume resistivity [Ohm*cm] DIN IEC 60093	5*10 <sup>7</sup>	8*10 <sup>7</sup>	8*10 <sup>7</sup>

The plaques are manufactured by injection molding from pre-dried granules (water content less 0.02 %). Test plaques are aged 20 hrs at 100 °C. Specimens are cut from test plaques. Test conditions: 23 °C ± 2 °C and 50 % ± 6 % rel. humidity.

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed. (October 2019)

<sup>\*</sup> Non-ESD grades are also available in the same hardness range