

## Arnitel® EL550

## TPC-ET

## Injection Molding

Print Date: 2017-11-03

| Properties                                | Typical Data | Unit                   | Test Method       |
|---|--------------|------------------------|-------------------|
| <b>Rheological properties</b>             |              | <b>Value</b>           |                   |
| Melt volume-flow rate                     | 36           | cm <sup>3</sup> /10min | ISO 1133          |
| Temperature                               | 230          | °C                     | ISO 1133          |
| Load                                      | 2.16         | kg                     | ISO 1133          |
| Molding shrinkage [parallel]              | 1.55         | %                      | Sim. to ISO 294-4 |
| Molding shrinkage [normal]                | 1.55         | %                      | Sim. to ISO 294-4 |
| <b>Mechanical properties</b>              |              | <b>Value</b>           |                   |
| Shore D Hardness (3s)                     | 51           | -                      | ISO 868           |
| Tensile modulus                           | 170          | MPa                    | ISO 527-1/-2      |
| Stress at break                           | 32           | MPa                    | ISO 527-1/-2      |
| Nominal strain at break                   | 640          | %                      | ISO 527-1/-2      |
| Stress at 5% strain                       | 7.4          | MPa                    | ISO 527-1/-2      |
| Stress at 10% strain                      | 11.1         | MPa                    | ISO 527-1/-2      |
| Stress at 50% strain                      | 13.8         | MPa                    | ISO 527-1/-2      |
| Stress at 100% strain                     | 13.7         | MPa                    | ISO 527-1/-2      |
| Charpy notched impact strength (+23°C)    | N            | kJ/m <sup>2</sup>      | ISO 179/1eA       |
| Charpy notched impact strength (-30°C)    | 25           | kJ/m <sup>2</sup>      | ISO 179/1eA       |
| Izod notched impact strength (+23°C)      | N            | kJ/m <sup>2</sup>      | ISO 180/1A        |
| Izod notched impact strength (-20°C)      | N            | kJ/m <sup>2</sup>      | ISO 180/1A        |
| <b>Thermal properties</b>                 |              | <b>Value</b>           |                   |
| Melting temperature (10°C/min)            | 207          | °C                     | ISO 11357-1/-3    |
| Temp. of deflection under load (0.45 MPa) | 110          | °C                     | ISO 75-1/-2       |

Akulon®, Arnite®, Arnitel®, EcoPaXX®, ForTii®, Novamid®, Stanyl® and Xytron™ are trademarks of DSM.

All information supplied by or on behalf of DSM in relation to its products, whether in the nature of data, recommendations or otherwise, is supported by research and, in good faith, believed reliable, but DSM assumes no liability and makes no warranties of any kind, express or implied, including, but not limited to, those of title, merchantability, fitness for a particular purpose or non-infringement or any warranty arising from a course of dealing, usage, or trade practice whatsoever in respect of application, processing or use made of the aforementioned information, or product. The user assumes all responsibility for the use of all information provided and shall verify quality and other properties or any consequences from the use of all such information.

Typical values are indicative only and are not to be construed as being binding specifications. This document replaces all previous versions relating to this subject.

Copyright © DSM 2017. All rights reserved. No part of the information may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of DSM.

## Property Data

# Arnitel<sup>®</sup> EL550

Print Date: 2017-11-03

| Properties                                   | Typical Data | Unit   | Test Method     |
|--|--------------|--------|-----------------|
| Vicat softening temperature (50°C/h 50N)     | 90           | °C     | ISO 306         |
| Coeff. of linear therm. expansion (parallel) | 2            | E-4/°C | ISO 11359-1/-2  |
| Coeff. of linear therm. expansion (normal)   | 2            | E-4/°C | ISO 11359-1/-2  |
| Burning Behav. at 1.5 mm nom. thickn.        | HB           | class  | IEC 60695-11-10 |
| Thickness tested                             | 1.6          | mm     | IEC 60695-11-10 |
| UL recognition                               | Yes          | -      | -               |

### Electrical properties

#### Value

|                               |      |       |             |
|-------------------------------|------|-------|-------------|
| Relative permittivity (100Hz) | 4.4  | -     | IEC 60250   |
| Relative permittivity (1 MHz) | 4    | -     | IEC 60250   |
| Dissipation factor (1 MHz)    | 400  | E-4   | IEC 60250   |
| Volume resistivity            | 1E11 | Ohm*m | IEC 60093   |
| Electric strength             | 21   | kV/mm | IEC 60243-1 |
| Comparative tracking index    | 600  | V     | IEC 60112   |

### Other properties

#### Value

|                     |      |                   |                |
|---------------------|------|-------------------|----------------|
| Density             | 1200 | kg/m <sup>3</sup> | ISO 1183       |
| Water absorption    | 0.65 | %                 | Sim. to ISO 62 |
| Humidity absorption | 0.2  | %                 | Sim. to ISO 62 |

Akulon®, Arnite®, Arnitel®, EcoPaXX®, ForTii®, Novamid®, Stanyl® and Xytron™ are trademarks of DSM.

All information supplied by or on behalf of DSM in relation to its products, whether in the nature of data, recommendations or otherwise, is supported by research and, in good faith, believed reliable, but DSM assumes no liability and makes no warranties of any kind, express or implied, including, but not limited to, those of title, merchantability, fitness for a particular purpose or non-infringement or any warranty arising from a course of dealing, usage, or trade practice whatsoever in respect of application, processing or use made of the aforementioned information, or product. The user assumes all responsibility for the use of all information provided and shall verify quality and other properties or any consequences from the use of all such information.

Typical values are indicative only and are not to be construed as being binding specifications. This document replaces all previous versions relating to this subject.

Copyright © DSM 2017. All rights reserved. No part of the information may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of DSM.

