

# Rilsan® AECV T8L

Polyamide 12

Arkema

Message:

Rilsan® AECV T8L is a Polyamide 12 (Nylon 12) product. It can be processed by film extrusion or injection molding and is available in Africa & Middle East, Asia Pacific, Europe, Latin America, or North America.

Characteristics include:

Good UV Resistance

Heat Resistant

| General Information                      |      |                                                                                                                                 |                        |                          |
|------------------------------------------|------|---------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------------|
| Features                                 |      | Good UV Resistance<br>High Heat Resistance                                                                                      |                        |                          |
| Forms                                    |      | Pellets                                                                                                                         |                        |                          |
| Processing Method                        |      | Film Extrusion<br>Injection Molding                                                                                             |                        |                          |
| Multi-Point Data                         |      | Isothermal Stress vs. Strain (ISO 11403-1)<br>Secant Modulus vs. Strain (ISO 11403-1)<br>Viscosity vs. Shear Rate (ISO 11403-2) |                        |                          |
| Physical                                 | Dry  | Conditioned                                                                                                                     | Unit                   | Test Method              |
| Density                                  | 1010 | 1010                                                                                                                            | kg/m <sup>3</sup>      | ISO 1183 <sup>1</sup>    |
| Melt volume-flow rate<br>(235°C/2.16 kg) | 11.0 | --                                                                                                                              | cm <sup>3</sup> /10min | ISO 1133 <sup>2</sup>    |
| Water Absorption<br>(Saturation)         | 1.6  | --                                                                                                                              | %                      | ISO 62 <sup>3</sup>      |
| Mechanical                               | Dry  | Conditioned                                                                                                                     | Unit                   | Test Method              |
| Tensile modulus                          | 1350 | 1100                                                                                                                            | MPa                    | ISO 527-2 <sup>4</sup>   |
| Tensile Stress (Yield)                   | 41.0 | 37.0                                                                                                                            | MPa                    | ISO 527-2 <sup>5</sup>   |
| Tensile Strain (Yield)                   | 5.0  | 10                                                                                                                              | %                      | ISO 527-2 <sup>6</sup>   |
| Nominal strain at break                  | > 50 | > 50                                                                                                                            | %                      | ISO 527-2 <sup>7</sup>   |
| Impact                                   | Dry  | Conditioned                                                                                                                     | Unit                   | Test Method              |
| Charpy notched impact strength           |      |                                                                                                                                 |                        | ISO 179/1eA <sup>8</sup> |
| -30°C                                    | --   | 6.00                                                                                                                            | kJ/m <sup>2</sup>      |                          |
| 23°C                                     | --   | 8.00                                                                                                                            | kJ/m <sup>2</sup>      |                          |
| Charpy impact strength                   |      |                                                                                                                                 |                        | ISO 179/1eU <sup>9</sup> |
| -30°C                                    | --   | No Break                                                                                                                        |                        |                          |
| 23°C                                     | --   | No Break                                                                                                                        |                        |                          |
| Puncture energy (-30°C)                  | --   | 70.0                                                                                                                            | J                      | ISO 6603-2 <sup>10</sup> |

|                                                     |                                                                                 |             |          |                           |
|-----------------------------------------------------|---------------------------------------------------------------------------------|-------------|----------|---------------------------|
| Puncture - maximum force<br>(-30°C)                 | --                                                                              | 5000        | N        | ISO 6603-2 <sup>11</sup>  |
| Thermal                                             | Dry                                                                             | Conditioned | Unit     | Test Method               |
| Deflection Temperature<br>Under Load                |                                                                                 |             |          | ISO 75-2 <sup>12</sup>    |
| 0.45 MPa                                            | 135                                                                             | --          | °C       |                           |
| 1.8 MPa                                             | 55.0                                                                            | --          | °C       |                           |
| Vicat Softening<br>Temperature (50°C/h, B<br>(50N)) | 138                                                                             | --          | °C       | ISO 306 <sup>13</sup>     |
| Melting Temperature <sup>14</sup>                   | 178                                                                             | --          | °C       | ISO 11357-3 <sup>15</sup> |
| CLTE - Flow                                         | 8.0E-5                                                                          | --          | cm/cm/°C | ISO 11359-2 <sup>16</sup> |
| Electrical                                          | Dry                                                                             | Conditioned | Unit     | Test Method               |
| Surface resistivity                                 | --                                                                              | 1.0E+11     | ohms     | IEC 60093 <sup>17</sup>   |
| Volume resistivity                                  | --                                                                              | 2.0E+6      | ohms·m   | IEC 60093 <sup>18</sup>   |
| Electric strength                                   | --                                                                              | 40          | kV/mm    | IEC 60243-1 <sup>19</sup> |
| Relative Permittivity                               |                                                                                 |             |          | IEC 60250 <sup>20</sup>   |
| 100 Hz                                              | 4.00                                                                            | --          |          |                           |
| 1 MHz                                               | 3.00                                                                            | --          |          |                           |
| Dissipation Factor                                  |                                                                                 |             |          | IEC 60250 <sup>21</sup>   |
| 100 Hz                                              | 0.043                                                                           | --          |          |                           |
| 1 MHz                                               | 0.019                                                                           | --          |          |                           |
| Comparative tracking index                          | --                                                                              | 600         |          | IEC 60112 <sup>22</sup>   |
| Flammability                                        | Dry                                                                             | Conditioned | Unit     | Test Method               |
| Burning Behav. at 1.6mm<br>nom. thickn. (1.60 mm)   | HB                                                                              | --          |          | ISO 1210 <sup>23</sup>    |
| Burning Behav. at thickness<br>h (3.20 mm)          | V-2                                                                             | --          |          | ISO 1210 <sup>24</sup>    |
| Oxygen index                                        | 22                                                                              | --          | %        | ISO 4589-2 <sup>25</sup>  |
| NOTE                                                |                                                                                 |             |          |                           |
| 1.                                                  | Tested in accordance with<br>ISO 10350. 23°C/50%r.h.<br>unless otherwise noted. |             |          |                           |
| 2.                                                  | Tested in accordance with<br>ISO 10350. 23°C/50%r.h.<br>unless otherwise noted. |             |          |                           |
| 3.                                                  | Tested in accordance with<br>ISO 10350. 23°C/50%r.h.<br>unless otherwise noted. |             |          |                           |
| 4.                                                  | Tested in accordance with<br>ISO 10350. 23°C/50%r.h.<br>unless otherwise noted. |             |          |                           |
| 5.                                                  | Tested in accordance with<br>ISO 10350. 23°C/50%r.h.<br>unless otherwise noted. |             |          |                           |
| 6.                                                  | Tested in accordance with<br>ISO 10350. 23°C/50%r.h.<br>unless otherwise noted. |             |          |                           |

|     |                                                                                 |
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| 7.  | Tested in accordance with<br>ISO 10350. 23°C/50%r.h.<br>unless otherwise noted. |
| 8.  | Tested in accordance with<br>ISO 10350. 23°C/50%r.h.<br>unless otherwise noted. |
| 9.  | Tested in accordance with<br>ISO 10350. 23°C/50%r.h.<br>unless otherwise noted. |
| 10. | Tested in accordance with<br>ISO 10350. 23°C/50%r.h.<br>unless otherwise noted. |
| 11. | Tested in accordance with<br>ISO 10350. 23°C/50%r.h.<br>unless otherwise noted. |
| 12. | Tested in accordance with<br>ISO 10350. 23°C/50%r.h.<br>unless otherwise noted. |
| 13. | Tested in accordance with<br>ISO 10350. 23°C/50%r.h.<br>unless otherwise noted. |
| 14. | 10 °C/min                                                                       |
| 15. | Tested in accordance with<br>ISO 10350. 23°C/50%r.h.<br>unless otherwise noted. |
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| 21. | Tested in accordance with<br>ISO 10350. 23°C/50%r.h.<br>unless otherwise noted. |
| 22. | Tested in accordance with<br>ISO 10350. 23°C/50%r.h.<br>unless otherwise noted. |
| 23. | Tested in accordance with<br>ISO 10350. 23°C/50%r.h.<br>unless otherwise noted. |
| 24. | Tested in accordance with<br>ISO 10350. 23°C/50%r.h.<br>unless otherwise noted. |

25.

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ISO 10350. 23°C/50%r.h.  
unless otherwise noted.

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