

## Technical Data Sheet

### Vitamide 6 BX30 HT WHI6616



Polyamide 6

#### Product Description

Vitamide FR VIT 6 BX30 HTWHI6616 is a Polyamide 6 material and is typically used in Injection Molding applications.

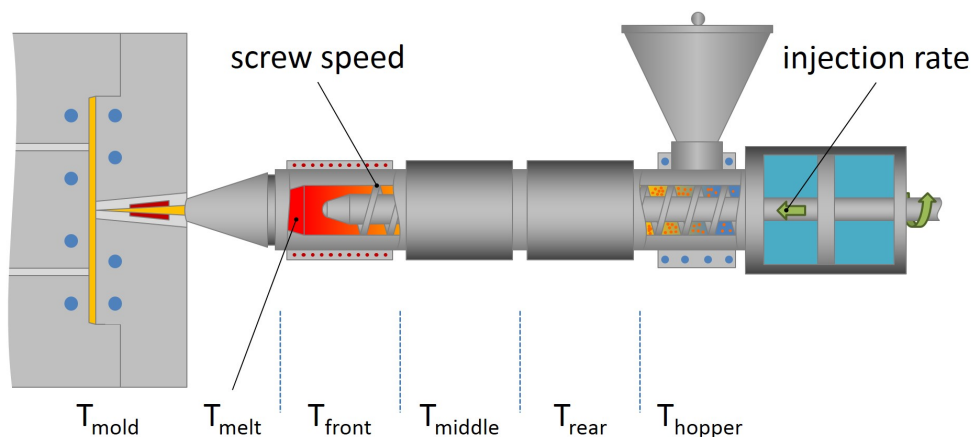
#### Regulatory Status

For regulatory compliance information, see Vitamide 6 BX30 HT WHI6616 [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

|                   |                                                                        |
|-------------------|------------------------------------------------------------------------|
| Status            | Limited Issue                                                          |
| Availability      | Africa-Middle East; Asia-Pacific; Europe; Latin America; North America |
| Processing Method | Injection Molding                                                      |

| Typical Properties                                                      | Nominal Value | Units              | Test Method |
|-------------------------------------------------------------------------|---------------|--------------------|-------------|
| <b>Physical</b>                                                         |               |                    |             |
| Density                                                                 | 1.36          | g/cm <sup>3</sup>  | ISO 1183    |
| Viscosity Number, (96% H <sub>2</sub> SO <sub>4</sub> (Sulphuric Acid)) | 145           | cm <sup>3</sup> /g | ISO 307     |
| <b>Mechanical</b>                                                       |               |                    |             |
| Tensile Stress at Yield                                                 |               |                    |             |
| (Type 1A, 50 mm/min)                                                    | 75.0          | MPa                | ISO 527-2   |
| (Type 1A, 50 mm/min) - Conditioned                                      | 40.0          | MPa                | ISO 527-2   |
| Nominal Tensile Strain at Break                                         |               |                    |             |
| (50 mm/min, Type 1A) - Conditioned                                      | 100           | %                  | ISO 527-2   |
| (50 mm/min, Type 1A)                                                    | 13            | %                  | ISO 527-2   |
| Tensile Strain at Break                                                 |               |                    |             |
| (Type 1A, 50 mm/min)                                                    | 55            | %                  | ISO 527-2   |
| (Type 1A, 50 mm/min) - Conditioned                                      | 40            | %                  | ISO 527-2   |
| Flexural Modulus, (2.0 mm/min)                                          | 3200          | MPa                | ISO 178     |
| Tensile Strain at Yield                                                 |               |                    |             |
| (Type 1A, 50 mm/min)                                                    | 4.5           | %                  | ISO 527-2   |
| (Type 1A, 50 mm/min) - Conditioned                                      | 30            | %                  | ISO 527-2   |
| Tensile Modulus                                                         |               |                    |             |
| (1 mm/min, Type 1A)                                                     | 3500          | MPa                | ISO 527-1   |
| (1 mm/min, Type 1A) - Conditioned                                       | 1100          | MPa                | ISO 527-1   |
| Flexural Stress                                                         |               |                    |             |
| (2.0 mm/min, 6.0%)                                                      | 110           | MPa                | ISO 178     |
| (Type 1A, 2.0 mm/min, 3.5%)                                             | 95.0          | MPa                | ISO 178     |
| <b>Impact</b>                                                           |               |                    |             |
| Charpy Impact Strength - Notched                                        |               |                    |             |
| (23 °C, Type 1, Edgewise, Notch A)                                      | 5.5           | kJ/m <sup>2</sup>  | ISO 179     |
| (-30 °C, Type 1, Edgewise, Notch A)                                     | 4.0           | kJ/m <sup>2</sup>  | ISO 179     |
| (23 °C, Type 1, Edgewise, Notch A) - Conditioned                        | 13            | kJ/m <sup>2</sup>  | ISO 179     |

|                                                         |          |                   |                      |
|---------------------------------------------------------|----------|-------------------|----------------------|
| Charpy Impact Strength - Unnotched                      |          |                   |                      |
| (23 °C, Type 1, Edgewise)                               | 90       | kJ/m <sup>2</sup> | ISO 179              |
| (-30 °C, Type 1, Edgewise)                              | 90       | kJ/m <sup>2</sup> | ISO 179              |
| (23 °C, Type 1, Edgewise) - Conditioned                 | No Break |                   | ISO 179              |
| <b>Thermal</b>                                          |          |                   |                      |
| Vicat Softening Temperature                             |          |                   |                      |
| (B (50N), 50 °C/h)                                      | 195      | °C                | ISO 306              |
| (A (10N), 50 °C/h)                                      | 215      | °C                | ISO 306              |
| Deflection Temperature Under Load Unannealed (0.45 MPa) | 155      | °C                | ISO 75-2/B           |
| Deflection Temperature Under Load Unannealed (1.80 MPa) | 60       | °C                | ISO 75-2/A           |
| <b>Electrical</b>                                       |          |                   |                      |
| Comparative Tracking Index (CTI), (Solution A)          | 550      | V                 | IEC 60112            |
| <b>Flammable</b>                                        |          |                   |                      |
| Burning Rate                                            |          |                   |                      |
| (2.00 mm)                                               | <100     | mm/min            | FMVSS 302            |
| (2.00 mm)                                               | <100     | mm/min            | ISO 3795             |
| Glow Wire Flammability Index                            |          |                   |                      |
| (0.75 mm)                                               | 960      | °C                | IEC 60695-2-12       |
| (1.5 mm)                                                | 960      | °C                | IEC 60695-2-12       |
| (3.0 mm)                                                | 960      | °C                | IEC 60695-2-12       |
| Glow Wire Ignition Temperature                          |          |                   |                      |
| (0.75 mm)                                               | 800      | °C                | IEC 60695-2-13       |
| (1.5 mm)                                                | 800      | °C                | IEC 60695-2-13       |
| (3.0 mm)                                                | 800      | °C                | IEC 60695-2-13       |
| <b>UL Information</b>                                   |          |                   |                      |
| Flame Rating                                            |          |                   |                      |
| (1.6 mm)                                                | V-0      |                   | UL 94                |
| (3.2 mm)                                                | V-0      |                   | UL 94                |
| (0.8 mm)                                                | V-0      |                   | UL 94                |
| Flammability Classification                             |          |                   |                      |
| (0.8 mm)                                                | V-0      |                   | IEC 60695-11-10, -20 |
| (1.6 mm)                                                | V-0      |                   | IEC 60695-11-10, -20 |
| (3.2 mm)                                                | V-0      |                   | IEC 60695-11-10, -20 |



| Injection Parameters   | Nominal Value | Units  |
|------------------------|---------------|--------|
| Drying Time            | 3.0 to 4.0    | hr     |
| Drying Temperature     | 80            | °C     |
| Suggested Max Moisture | 0.040 to 0.10 | %      |
| Screw Speed            | <250          | mm/sec |
| Processing (Melt) Temp | 240 to 260    | °C     |
| Injection Rate         | Slow-Moderate |        |
| Mold Temperature       | 60 to 100     | °C     |

## Notes

These are typical property values not to be construed as specification limits.

## Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

## Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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