

## TASNEE HD IM2050

## POLYETHYLENE

### DESCRIPTION

**TASNEE HD IM2050** is a High Density Polyethylene (HDPE), multimodal resin manufactured by slurry process using advanced cascade process technology.

**TASNEE HD IM2050** is easy to process on injection and compression moulding equipment. This grade has very good stiffness and toughness, high ESCR and exceptional organoleptic properties.

### TYPICAL APPLICATION

Caps & closures for still water, juice, and others food & non-food applications.

TYPICAL PROPERTIES	METHOD	UNIT	VALUE
<b>Physical</b>			
Density	ISO 1183-1	g/cm <sup>3</sup>	0.953
Melt Flow Rate (190°C/2.16 kg)	ISO 1133-1	g/10 min	2.1
Melt Flow Rate (190°C/5.0 kg)	ISO 1133-1	g/10 min	6.3
<b>Mechanical</b>			
Tensile Modulus	ISO 527-1, -2	MPa	1150
Tensile Stress @ Yield	ISO 527-1, -2	MPa	30
Tensile Strain @ Yield	ISO 527-1, -2	%	10
FNCT (6 MPa, 2% Arkopal N 100, 50°C)	ISO 16770	hr	9
<b>Impact</b>			
Charpy Impact Strength-Notched @ -30°C	ISO 179/1eA	kJ/m <sup>2</sup>	5.0
<b>Hardness</b>			
Shore Hardness (Shore D)	ISO 868		62
Ball Indentation Hardness (H 132/30)	ISO 2039-1	MPa	51
<b>Thermal</b>			
Vicat Softening Temperature (B50 (50°C/hr, 50N))	ISO 306	°C	75

#### Recommended Temperatures:

Injection molding melt temperature: 190°C - 240°C

Compression molding melt temperature: 180°C - 210°C

**Note:** The above properties values are not to be construed as specifications.

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## **Food Contact**

The material is manufactured to the highest standards but, special requirements apply to certain applications, such as food contact end-use. For specific information on regulatory compliance, please contact TASNEE below or our local representative in your area.

## **Safety**

Workers should be protected from the possibility of skin or eye contact with molten polymer. As minimum precaution, safety glasses and heat resistance gloves are suggested to prevent mechanical or thermal injury to eyes and hands. Molten polymer exceeding processing condition requirements may degrade and release, fumes, vapors and unpleasant odor. In higher concentrations they may cause irritation of the mucus membranes. Fabrication areas should be ventilated to carry away fumes and vapors. Legislation on the control of emissions and pollution prevention must be observed. If the principles of sound manufacturing practice are adhered to and the place of work is well ventilated, no health hazards are involved in processing the material.

The material may burn when supplied with excess heat and oxygen. It should be handled and stored away from contact with direct flames and/or ignition sources. In burning the material generates considerable heat and may release a dense black smoke. Fires should be extinguished by heavy foams or dry powder. For further information about safety in handling and processing please refer to the Safety Data Sheet (SDS).

## **Storage**

The material is packed in 25 kg bags or in bulk containers protecting it from contamination. Storage time of material longer than 6 months may have a negative influence on the quality of the final product. It is generally recommended to convert all materials latest within 6 months from delivery date. The material is subjected to degradation by ultra-violet radiation or by high storage temperatures. Therefore the material must be protected from direct sunlight, temperatures above 40°C and high atmospheric humidity during storage. Further unfavorable storage conditions are large fluctuations in ambient temperature and high atmospheric humidity. TASNEE will not give any warranty to unfavorable storage conditions which may lead to quality deterioration such as color change, bad smell and inferior product performance.

## **Disclaimer**

"The information and data contained in this document is submitted without prejudice, and is based on our current knowledge, experience and on a limited number of tests". "In view of the many factors that may affect processing and application, these data do not relieve the receiver of this information from the responsibility of carrying out their own tests and experiments; neither do they imply any legally binding assurance of certain properties nor of suitability for a specific purpose of the products made with or on the basis of the information in this document".