



## CÔNG TY TNHH POLYSTYRENE VIETNAM

Đường số 5 KCN Đông Xuyên, Phường Rạch Dừa, TP Vũng Tàu  
No 5, Dong Xuyen Industrial Zone, Rach Dua Ward, Vung Tau City  
Tel: 84-64 615365 , 615771~2 - Fax: 84-64 615384  
Tax code: 3500766119

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### **VNPS PEARL**

Introduction:

**VNPS PEARL** is a General Purposes Expandable Polystyrene having low density range, good Water Proofing and good resistance to Alkali/Acid. The moisture content level is very low

**VNPS PEARL** is available in different bead sizes that are:

- a. L. (1.66 - 2.0 mm)
- b. MS. (1.24 - 1.66 mm)
- c. S. (1.0 - 1.24 mm)
- d. SS. (0.71 - 1.00 mm)
- e. SSS. (0.5 - 0.71 mm)

Characteristics:

**VNPS PEARL** is sphere like pearl, low volatility, no hard core, anti-static, good fusion and perform grade.

## DESCRIPTION

**VNPS PEARL** is an expandable polystyrene grade containing pentane as a foam agent.

This product possesses the qualities of expansion-friendly, easy for mould-releasing, and excellent fusion property.

## APPLICATIONS

This product can be used as precision and high density articles.

## PROCESSING

The processing conditions of **VNPS PEARL** depend on the combination of the product and processing equipment used.

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| Prefoaming   | The steam must be saturated at the temperature of 90~100°C. To reach the density below 15 kg/m <sup>3</sup> with a continuous prefoamer, prefoaming twice is recommended.  |
| Conditioning | Generally, 12~24 hours is recommended, but it depends on the density. Between the two steps of prefoaming, the conditioning time for 4~6 hours is suggested.   |
| Moulding     | The machine should be fed with saturated steam with the maximal pressure of 1.3~1.5 bar (about 105~110°C).<br>The steaming time depends on the equipment used as well as the required size and strength of the final product. Therefore, all the machines must be adjusted individually. In order to reduce the cycling time and to increase the strength of the product, the vacuumizing of the equipment is recommended. |
| Cutting      | Hot wire cutting oscillating or stationary wires is recommended.<br>Temperature of the wires should be about 200~300°C.  |

## TYPICAL PHYSICAL PROPERTIES

### Raw material

	Value	Unit
Bulk density	0.6	kg/l
Pentane content	5-7	%
Monomer level	< 0.4	%

### End product

	10 kg/m <sup>3</sup>	15 kg/m <sup>3</sup>	20 kg/m <sup>3</sup>	30 kg/m <sup>3</sup>	40 kg/m <sup>3</sup>
Compressive stress (kPa)	40	80	115	210	320
Bending strength (kPa)	110	180	260	400	570
Heat conductivity (W/mK)	0.042	0.037	0.033	0.031	0.030

## STORAGE AND HANDLING

Keep away from fire hazards.

Store in a cool, dry and well ventilated area. Provide and assure proper electrostatic bonding and grounding of process handling equipment.

## SAFETY

General purpose expandable polystyrene is a stable product, it contains pentane.

After opening, allow at least 10 minutes for pentane vapors to disperse before using.

Place waste in labeled drums for recycling at nearest Plastics Recycling Plant.