

PVC 703E

Emulsion Polyvinyl Chloride for Paste Preparation

Product Description

PVC 703E is a fine particle, medium - molecular weight PVC homopolymer, made by emulsion polymerization. It is designed for the manufacture of plastisols exhibiting high viscosity and high yield value at low shear rates with pseudoplastic flow characteristic at high shear rates with plasticizer concentration of > 70 Phr. Because of the high viscosity of PVC 703E pastes, this resin is recommended primarily for highly plasticized applications.

Plastisol made from this resin exhibit the following main properties.

- Low gelation temperature
- Long shelf life, low viscosity ageing
- Little tendency to sediment
- Good thermal stability with a range of standard stabilizers

Typical Applications

PVC 703E has been developed especially for making plastisols of high yield points and high viscosity, without adding thickening agents. PVC 703E plastisols are ideal for chemical foams of very good quality with very regular closed cell structure, over a large range of oven temperatures.

The main applications are:

- Direct or transfer coating onto wide mesh or net-type fabrics made from natural or synthetic fibers.
- Chemical foams with very high thickness, low density and very fine closed cell structure, with or without support.
- Compact or foamed artificial leather of very high softness.
- Foam - wall covering.
- Plastisols for car body Coating and undersealants.

Typical Data

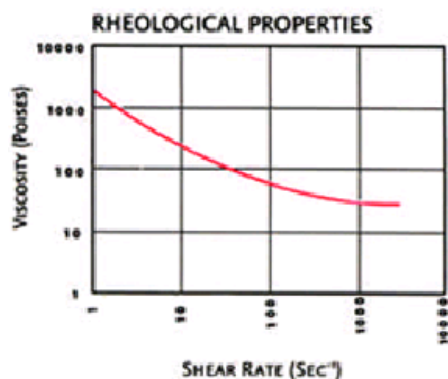
Property	Unit	Value ⁽¹⁾	Test Method
K-Value	-	70	ISO 1628-2
Volatile Content	%	Max. 0.3	ISO 1269
Bulk Density	kg/m ³	320	ISO 60
Particle Size			
retained on 106 um	%	0.01	ISO 1624
retained on 63 um	%	1	
Paste Viscosity ⁽²⁾			
Brookfield @ 20 rpm	Poise (Pa. s)	700 (70)	ISO 2555/4575
Servers @ 90 psi	Poise (Pa. s)	50 (5)	ASTM D-1823

(1) Typical values; not to be construed as specification limits.

(2) Paste made from 100 parts PVC and 70 parts DOP, measured after one hour aging.

Plastisol Preparation

PVC 703E is easily converted into a paste using intensive or slow speed mixers. If an intensive mixer is used, overheating during mixing must be avoided since this could lead to unwanted increase in viscosity. When filters and pigments have to be incorporated into plastisols, raw materials having as low an oil absorption as possible should be selected to avoid increasing paste viscosity. In order to achieve chemically blown foam with very fine cell structure, plastisols should not be de-aerated.



Packaging and Storage

PVC 703E is delivered in paper bags filled using a filling valve. PVC resin should be stored in a manner to prevent a direct exposure to sunlight. The storage area should also be dry and preferably don't exceed 50°C. SABIC would not give warranty to bad storage conditions which may lead to quality deterioration such as color change and inadequate product performance. It is advisable to process PVC resin within 6 months after delivery.

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