

PHARMALENE[®]

BC 82 PH

HDPE

High density polyethylene

Pharmalene BC 82 PH is an high density polyethylene hexene copolymer, produced with gas phase technology. Its production is realized in conformity to the good manufacturing practices (GMP). The main use is in the pharmaceutical sector. The antioxidant additives used in it are approved by the polyethylene monography of the European Pharmacopoeia and used in compliance with it. The resin formulation is established by years of experience and it is not subject of changes.

Main Application

Pharmalene BC 82 PH is a multipurpose blow moulding material. This technology is used for manufacturing containers for solid or bottles for liquid. Pharmalene BC 82 PH, thanks to its limited gels content, can be even used for film production.

Main Properties

Resin Properties	Value	Unit	Test Method
Melt Flow Rate (190 °C/2.16 kg)	0.25	g/10min	ISO 1133
Melt Flow Rate (190 °C/5 kg)	0.9	g/10min	ISO 1133
Melt Flow Rate (190 °C/21.6 kg)	23	g/10min	ISO 1133
Density	0.954	g/cm ³	ISO 1183
Melting point	135	°C	Metodo interno
Brittleness temperature	<- 60	°C	ASTM D 746
Vicat softening point (1 kg)	125	°C	ISO 306/A

Mechanical Properties *	Value	Unit	Test Method
Tensile stress at yield	27	MPa	ISO 527
Tensile stress at break	30	MPa	ISO 527
Elongation at break	> 600	%	ISO 527
Flexural modulus	1200	MPa	ISO 178
Hardness Shore D	64	-	ISO 868 A
Falling Weight	-	J/mm	ISO 6603-2
Izod impact strength, notched	180	J/m	ISO 180/A
ESCR **	> 60	h	ASTM 1693/B

(*) Values are referred to compression moulded specimens. Actual properties are typical and may vary depending upon operating conditions.

(**) 100% surface-active agent – Condition B.

Processing notes

Pharmalene BC 82 PH can be processed with excellent result and the highest production rates both on blow moulding and blown film machineries.

Here below are mentioned the typical condition for the production of extrusion for this material:

Set temperature, extruder zone 1	(°C) 170-180
Set temperature, extruder zone 2	(°C) 185-195
Set temperature, extruder head zone	(°C) 185-190
Melt temperature	(°C) 195-205

Storage and Handling

Pharmalene BC 82 PH is supplied in pellet form. This material may readily be conveyed and bulk fed through equipment designed for conventional pelletised polyethylene resin, provided the equipment is designed to prevent accumulation of the fines and dust particles that are contained in all polyethylene resins. These fines and dust particles can, under certain conditions, pose an explosion hazard. We recommend that the conveying system used be equipped with filters of adequate size, operated and maintained in such a manner to ensure that no leaks develop and earthed adequately. We further recommend that good housekeeping should be practised throughout your facility.

The product should be stored in dry conditions at temperatures below 50°C and protected from sunlight.

Improper storage can initiate degradation which results in odour generation, colour changes and can have negative effects on the physical properties of the product.

Availability

Contact the versalis sales office nearest to you regarding availability and your specific application requirements.

Food Contact Status

Pharmalene BC 82 PH complies with the European Union (Reg. 10/2011) and the USA (FDA) rules, relating the use of plastic materials intended for contact with foodstuffs.

The composition of our product is in conformity with sections of the European Pharmacopoeia (eighth ed.) And those of the U.S. Pharmacopoeia (USP 34) that indicate the requirements for the polyethylene.

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versalis is available to provide the guaranteed values for each product on demand.