



Lacovyl® PB1704

PVC for Plastisol

Technical datasheet

■ Type :

Lacovyl® PB1704 is a high molecular weight homopolymer polyvinyl chloride resin. It is produced by KEM ONE micro-suspension polymerisation process and used to prepare plastisol pastes.

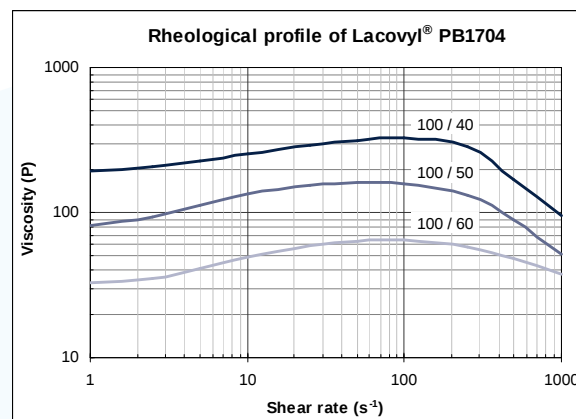
■ Main uses :

APPLICATION	COMPACT	FOAM
Flooring	■ ■	
Wallcovering	■	
Coated Fabric	■ ■	
UBS	■	
Cap sealant	■	
Dipping	■	
Rotational moulding		

■ ■ Recommended application

■ Possible application

■ Viscosity curves:



Viscosity measurements of plastisols with 40, 50 and 60 phr DINP by rotational rheometer after 2h at 23°C ageing.

■ General characteristics :

Lacovyl® PB1704 is a **high K-Value** resin which gives a **fluid plastisol** and provides **mat surface finish**. Used in **compact applications**, it is specially recommended for applications demanding **very high mechanical resistance** and / or **transparency**. Its good **fogging** characteristics make it suitable for automotive fabric coating.

CHARACTERISTIC	VALUE	METHOD
K-Value	82	ISO 1628-2
Viscosity number	180 ml/g	ISO 1628-2
Apparent bulk density	0,4 g/cm ³	ISO 60
Moisture content	< 0,25 %	ISO 1269
pH (Aqueous extract)	7	ISO 1060-2
Sieve retention (63 µm)	< 1 %	EN ISO 1624
Fineness (North Gauge)	120 µm	EN ISO 1524
Fogging (100°C/16hr)	< 5 mg/10 g	EN ISO 75201
Viscosity* at 5 s ⁻¹ (Equivalent Brookfield 20 rpm)	41 P or 4,1 Pa.s	EN ISO 3219
Viscosity* at 250 s ⁻¹	58 P or 5,8 Pa.s	EN ISO 3219

* viscosity measured with a mixture of PVC 100 / DINP 60 after 2 h of ageing at 23°C

■ Properties :

Résin

Lacovyl® PB1704 is a very fine particle size resin that can be used for very thin coatings.

Plastisol

Plastisols formulated with Lacovyl® PB1704 generally show a pseudoplastic behaviour. This allows the use of PB1704 in processes and applications that require a high degree of shear (thin coating at high speed) or in highly filled formulations where a long pot-life without a major risk of settlement is important.

Compact coating

Lacovyl® PB1704 was initially developed for the clear topcoat of floorcoverings. Used in low or medium plasticised applications or in filled formulations, it provides to compact coatings very high mechanical resistance, high thermal stability whatever the stabilizer type (Ba/Zn or Ca/Zn) and very good transparency properties. PB1704 is also used in fabric coating, in particular for automotive. Its very high K-value gives to coatings mat surface finish.



■ Packaging and storage :

Lacovyl® resins are supplied in 25 kg bags, wrapped on pallets. Resin must be stored in a dry place away from all heat sources, direct or indirect. The recommended storage time for this resin is 18 months maximum. For any information on the handling and precautions required when using Lacovyl® resins, please refer to the Material Safety Data Sheet, available on our website www.kemone.com (Links).

■ Lacovyl® range for plastisol :

GRADE	K-Value	APPLICATION		VISCOSITY	SELECTION CRITERIA
		Compact	Foam		
PA1384	69	■	■	Fluid	Copolymer, gelation improvement
PB1156	66		■	Viscous	Foam whiteness
PB1172H	67	■	■	Very fluid	Low-plasticised application, moulding
PB1202	67	■	■	Very fluid	Excellent filler acceptance
PB1302 / PB1302H	70	■		Very fluid	Multi-purpose resin, gloss
PB1305H	70	■		Fluid	Adhesion on textile substrate
PB1702	78.5	■		Very fluid	Mechanical properties, semi-matness
PB1704 / PB1704H	82	■		Fluid	High mechanical properties, matness
PB1705H	82	■		Fluid	Matness, improved dark yellowing
PE1311H	70	■	■	Very viscous	Highly pseudoplastic, Very low fogging
PE1511H	75	■	■	Very viscous	Very low fogging, Embossing

■ General Information :

KEM ONE's development laboratory (LAP) is dedicated to providing an efficient technical assistance to our customers. Its specialized and modern equipment makes it a highly-skilled laboratory especially in formulation, rheology and particle size measurement.



Saint-Auban development laboratory (LAP)

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KEM ONE HEAD OFFICE - Immeuble Le Quadrille - 19 rue Jacqueline Auriol - 69008 LYON (FRANCE)
 N° SIREN : 538 695 040 R.C.S LYON
 N° TVA INTRACOMMUNAUTAIRE : FR45538695040
 CAPITAL SOCIAL 98 025 001 €

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