



PB 1405

Type:

PB 1405 is a medium K-value PVC homopolymer resin obtained by microsuspension polymerisation for use in the preparation of plastisols.

Main uses:

- * Coating: coated fabrics (tarpaulins, conveyor belts etc), coil-coating,
- * Rotary moulding,
- * Crown seals,
- * Dipping.

PB 1405 is a low viscosity resin specially recommended for compact applications requiring very good adhesion on fabrics.

General characteristics:

	ISO reference	Value	Units
Viscosity index	(ISO 1628-2)	145	ml/g
K-value	(ISO 1628-2)	75	
Humidity	(ISO 1269)	< 0.25	%
Rheological behaviour	Pseudoplastic		
Plasticiser range	40 phr ← → 100 phr		

Properties:

Résin

PB 1405 allows to coat plastisol with very low plasticiser content (40 phr).

Plastisols

The pseudo plastic behaviour of plastisols prepared with PB 1405 makes the resin suitable for applications requiring use at high shear levels: low thickness coatings at high speed.

This pseudo plasticity also allows the storage of highly dosed formulations without major risk of settlement.

In addition, PB 1405 resin gives plastisol **excellent air-releasing properties**.

Compact coatings

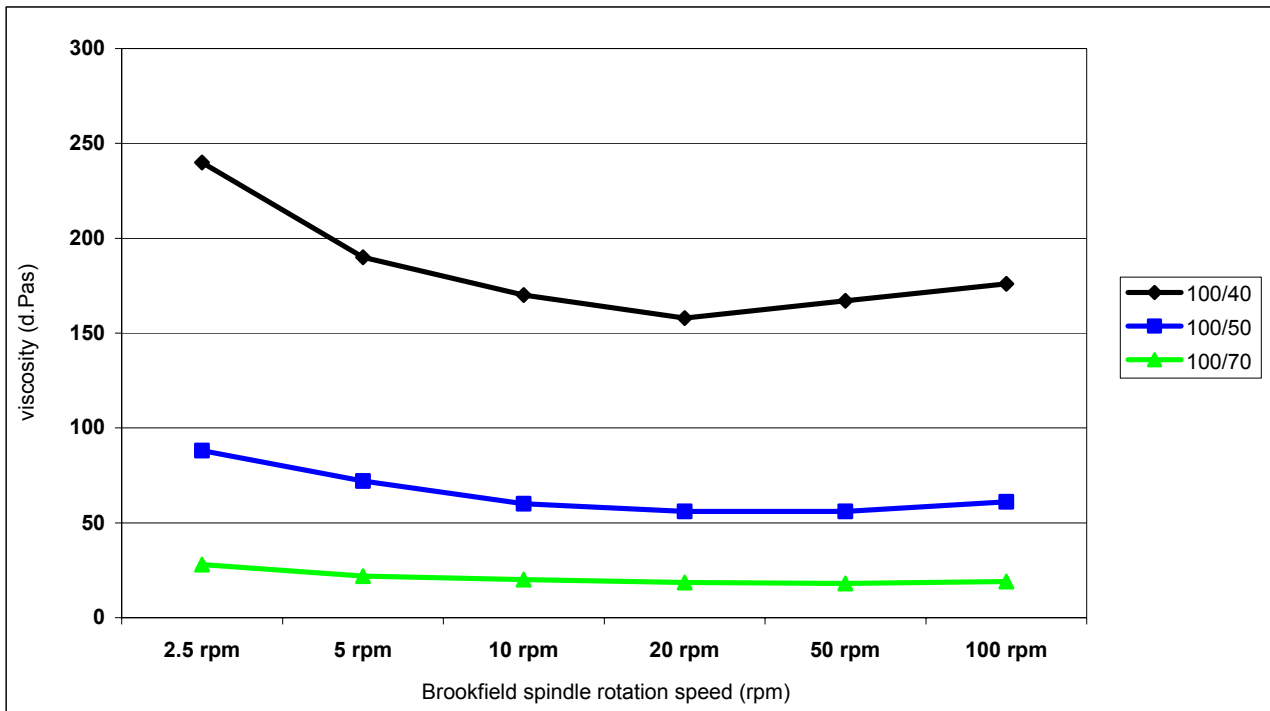
Plastisol coatings made using PB 1405 possess **good thermal stability (short and long term) and good UV stability** particularly suitable for the production of articles for outdoor use.

PB 1405 resin has also been developed to **enhance adhesion to textiles**, making it an excellent resin for all coatings requiring an adhesion promoter e.g. tarpaulins and conveyor belts. Using PB 1405 makes it possible to reduce the amount of adhesion agent and keep **rheological ageing down**.

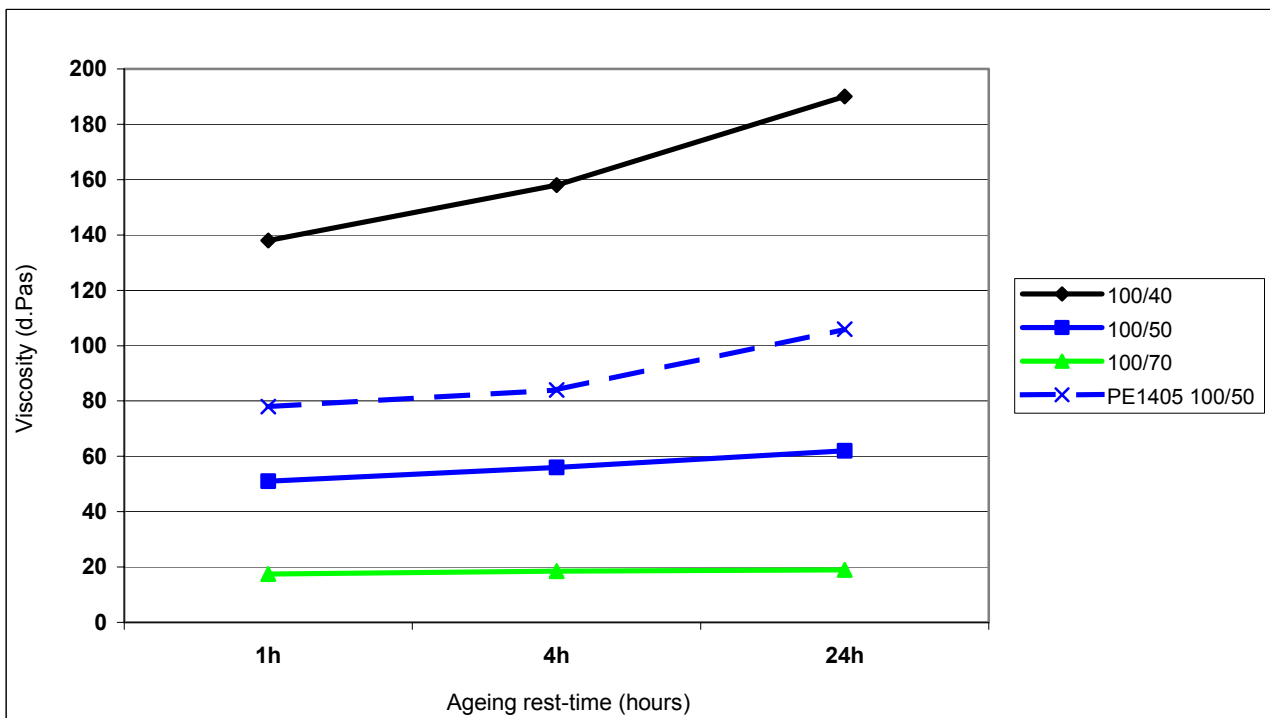
Medium K-value allows to produce coatings that are glossy and semi-glossy to be produced.

Rheological properties:

*DOP viscosity after 4 hours rest-time at 23°C
According to Brookfield spindle rotation speed*

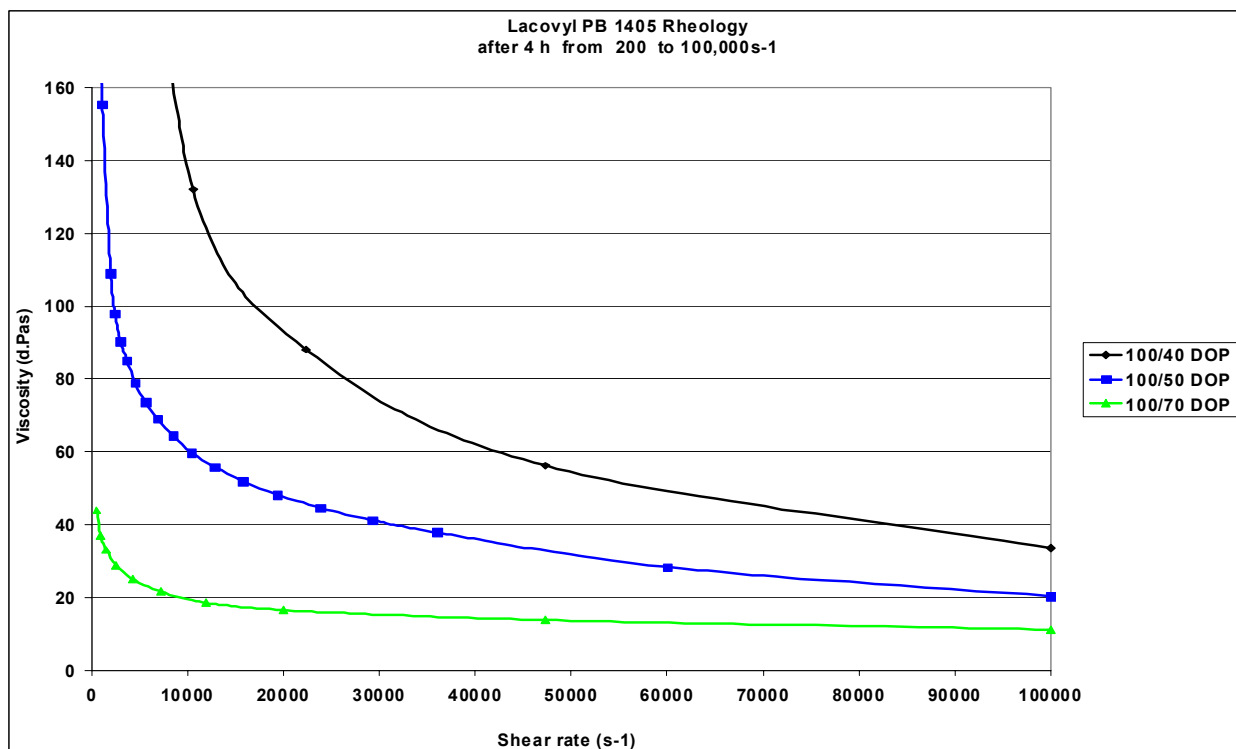


*Readings at low shear levels: BROOKFIELD viscosimeter
at 20 rpm in the DOP after aging at 23°C*



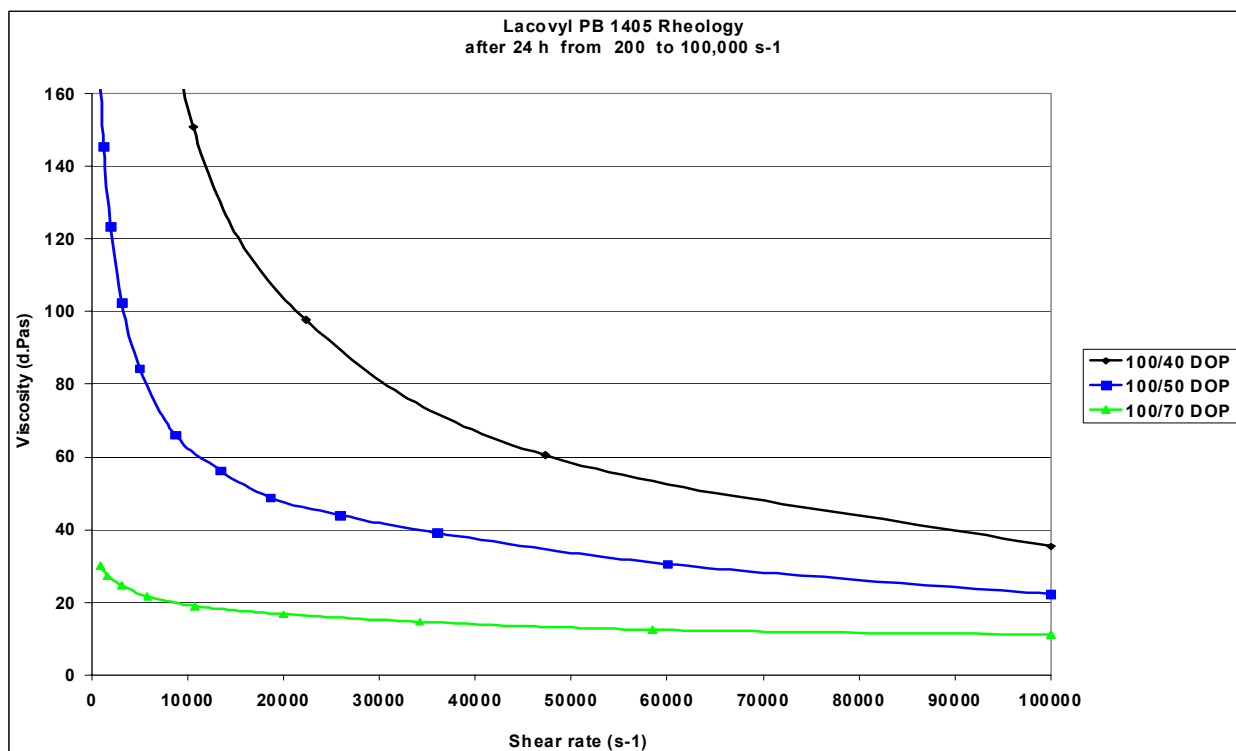
The more fluid Lacovyl PB 1405 than Lacovyl PE 1405, allows to produce plastisols with only 40 phr of plasticiser. It could also help to reduce the diluent content with more viscous polymeric plasticiser.

Readings in the DOP with high shear levels: ROSAND capillary viscometer



The PB 1405 resin shows pseudoplastic behaviour.

The same capillary viscosity readings after 24 hours rest-time at 23°C and 50% relative humidity gave the following results:

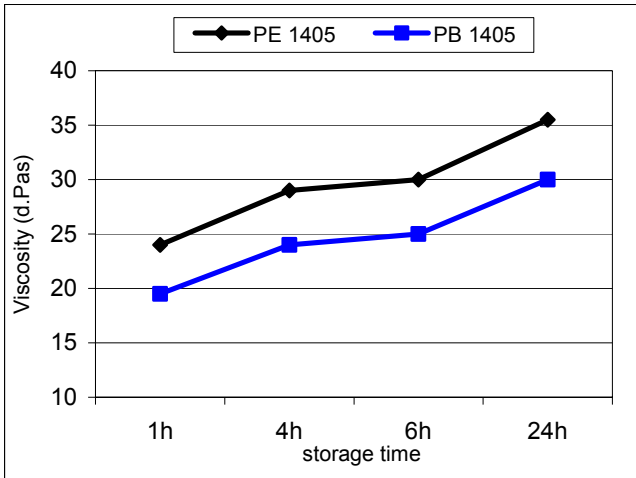


The PB 1405 resin still shows pronounced pseudoplasticity after 24 hours rest-time of the plastisol.

The Lacovyl PB 1405 gives low ageing plastisols which allows to use them after quite a long storage time.

1) Adhesion layer with isocyanates

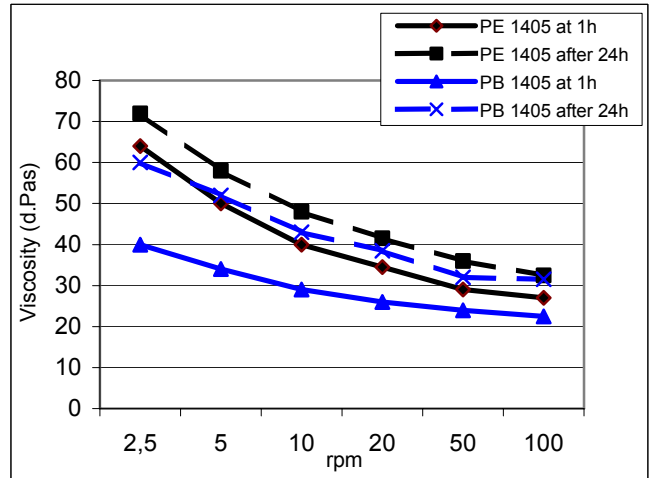
Readings at low shear levels: BROOKFIELD viscometer at 20 rpm.



New resin PB 1405 is an improvement from PE 1405: lower viscosity with slow ageing, even with these very hydrophilic isocyanates. The impregnation of fabric fibers should thus be enhanced.

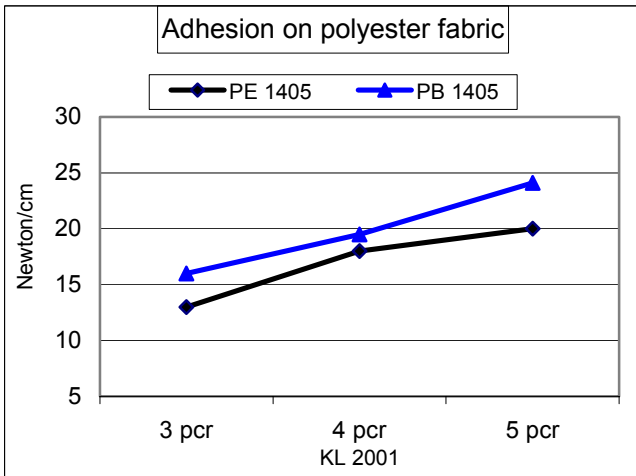
2) Top layer with fillers inside

Readings at low shear levels: BROOKFIELD viscometer at 20 rpm.



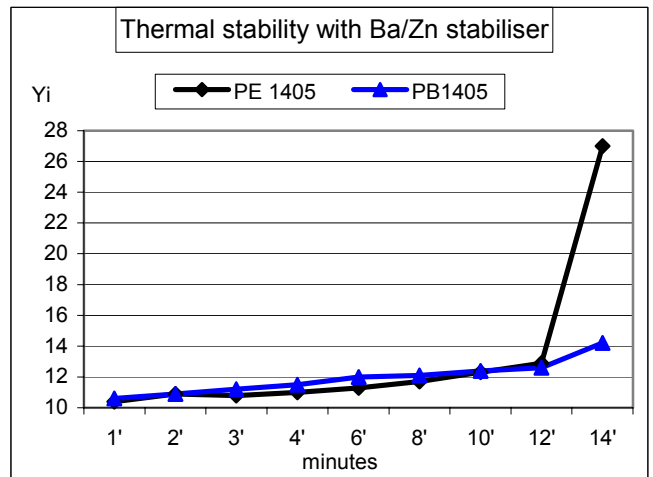
Lacovyl PB 1405 is a lower viscosity resin compared to Lacovyl PE 1405.

Adhesion strength after gelation at 190°C of adhesion + top layers all together



As it was before with Lacovyl PE 1405, PB 1405 allows you to save at least 2 pcr of bonding agent for the same adhesion performance.

Thermal stability: Yellow Index vs. residence time in the oven at 190°C



Yellow Index of Lacovyl PB 1405 is similar to Lacovyl PE 1405's one.

Packaging and storage:

PB 1405 resin is packed in bags of 25 kg, packed and wrapped on pallets.

It can also be delivered in bulk.

The 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 information on the precautions for the use of PB 1405 resin, please refer to the safety information sheet for this product.

General Information:

Further processing information and recommendations can be obtained from our Technical Service department or our representatives.

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BU PVC	08.01	04/2008

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