

PVC PASTE RESIN (K 65 – 67)

General Properties

KL-31 is a low molecular weight microsuspension type PVC homopolymer.

It produces plastisol exhibiting low viscosity at low shear rate and slight dilatancy at high shear rates with low-medium plasticizer level(50~70 phr).

Plastisol made from this polymer exhibit the following properties.

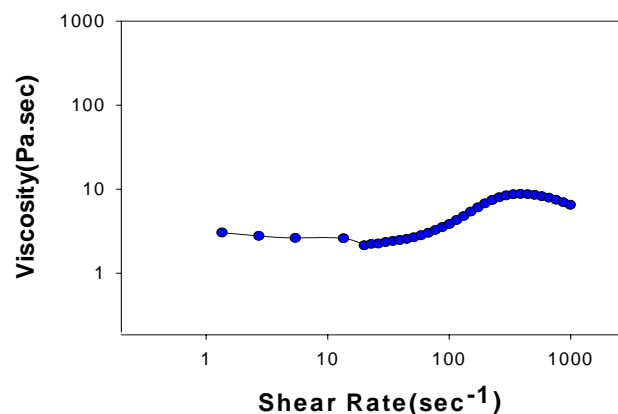
Good gelation rate

Good thermal/light stability with a wide range of stabilizers especially liquid Ba/Zn or Tin type

Good foaming properties with a wide range of stabilizers especially liquid K/Zn type

Low viscosity and low viscosity aging rate-long shelf life with little tendency to sediment

Rheological Properties



1 hours aged at 25 oC

Formulation

PVC 100

DOP 60

Polymer Properties

Property	Unit	Typical Value	Test Method
Polymerization degree	-	1000±50	JIS 6721
K-value	-	65~67	JIS 6721
Apparent density	g/cc	Min. 0.20	JIS 6721
Volatile content	%	Max. 0.50	JIS 6721
Particle size	%	100	100 mesh pass
BF viscosity(20rpm)	Pa.s	4	ASTM D
Viscosity at 500 sec-1	Pa.s	10	1824

BF viscosity test conditions: PVC 100

DOP 60 phr

1 hours aged at 25 oC

Applications

KI-31 produces plastisols which are ideal for the manufacture of foamed wall coverings and foamed floorings by spread coating.

KI-31 plastisols are also ideal for the spread coating of chemically blown foams with a fine cell structure produced at low-medium oven temperatures.

KI-31 can be applied by direct or transfer spread coating process, including drum gelling process.

The main applications are

Low medium plasticizer content chemically blown foam coating for wall coverings and cushioned floorings where a fine cell structure with excellent inhibition and contour sharpness is required.

Foaming material with a fine cell structure at low-medium oven temperature.

Chemically foamed wallcoverings produced by rotary screen coating process especially in blends with a pseudoplastic flow polymer such as EM3090.

Guide Formulations

Wall Covering	
KL-31	100 phr
DOP	65
Plasticizer for flame retardant (Chlorinated paraffin, TCP)	as required
Blowing Agent(ADCA)	3
Antimony oxide	10~20
Filler(Calcium Carbonate)	30~40
TiO ₂	10
Kicker(ZnO)	1~2
Stabilizer	3
Diluent	as required

Floor Covering(Foamed Layer)	
KL-31	60~70 phr
Blend Resin	30~40
DOP	3
2nd plasticizer(TXIB)	5~10
Stabilizer	1~2
Blowing Agent(ADCA)	2~3
Filler(Calcium Carbonate)	10~30
TiO ₂	3~6
Kicker(ZnO)	1
Diluent	as required