

General properties

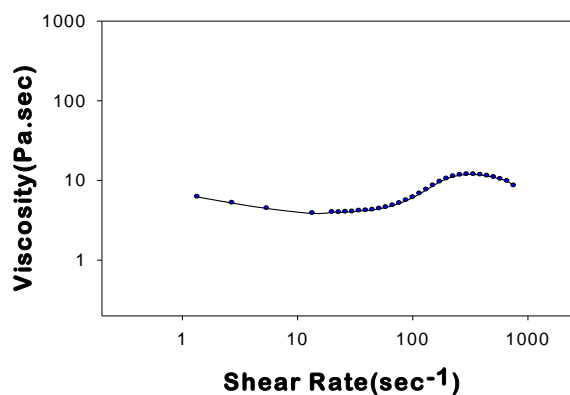
KH-31S is a high molecular weight micro-suspension type PVC homopolymer.

It produces plastisol exhibiting low viscosity at low shear rate and slight dilatancy at high shear rates with low-medium plasticizer level (40~60 phr).

Plastisol made from this polymer exhibit the following properties.

- ▶ low viscosity and low viscosity aging rate, long shelf life with little tendency to sediment
- ▶ high speed coating and good processibility
- ▶ good gelation rate, good air release
- ▶ fine cell structure and good touchness
- ▶ excellent thermal/light stability with a wide range of standard stabilizers
- ▶ fast mixing/dispersion properties with every type of mixers

Rheological properties



1 hours aged at 25 °C

Formulation
PVC 100
DINP 60 phr

Polymer properties

<i>Property</i>	<i>Unit</i>	<i>Typical Value</i>	<i>Test Method</i>
Polymerization Degree	-	1600 ± 50	JIS K 6720-2
K-value	-	75	DIN 53726
Apparent Bulk Density	g/cc	0.33 ± 0.05	ASTM D 1895
Volatile Content	%	Max. 0.30	ASTM D 3030
Particle Size	%	100	100 mesh pass
BF viscosity(20rpm)	Pa.s	6	ASTM D
Viscosity at 500 sec ⁻¹	Pa.s	12	1824

BF viscosity test conditions:

PVC 100

DINP 60 phr

1 hours aged at 25 °C

Applications

KH-31S produces plastisols which are ideal for the manufacture of foamed synthetic leathercloth by spread coating.

KH-31S plastisols are also ideal for the spread coating of chemically blown foams with a fine cell structure produced at high oven temperatures and with excellent mechanical properties.

KH-31S can be applied by spread coatings and rotational molding, dip coating and the casting process.

The main applications are

- ▶ foaming material with a fine cell structure at medium high oven temperature
- ▶ medium plasticizer level, low-medium thickness chemically blown foams for synthetic leather cloth by spread coating process.
- ▶ medium high plasticizer level, high thickness fine cell chemical foams with excellent mechanical properties
- ▶ rotational moldings, slush moldings and dip coatings with good mould release where high mechanical properties are required.

Guide formulations

Synthetic Leather (Sofa)	
KH-31S	80~100 phr
Blend Resin	0~20
DOP	55
BBP	15
Epoxy Plasticizer	3
Stabilizer	2
Filler	10~25
Blowing Agent	1.5~2
Pigment	as required

Synthetic Leather (Car Interior)	
KH-31S	80~100 phr
Blend Resin	0~20
DOP	65
Epoxy Plasticizer	3.5
Stabilizer	2
Filler	10~25
Blowing Agent(ADCA)	1.5~2
Pigment	as required