

General properties

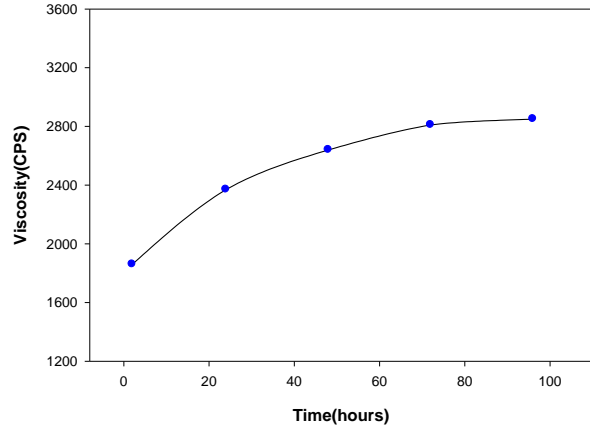
KM-31 is a medium molecular weight micro-suspension type PVC homopolymer.

It produces plastisol exhibiting low viscosity at low shear rate and low viscosity aging property with medium-high plasticizer level (60~100 phr).

Plastisol made from this polymer exhibits the following properties.

- ▶ low viscosity and low viscosity aging rate—long shelf life with little tendency to sediment
- ▶ good dispersion property and very low content of coarse particles with every type of mixers
- ▶ high speed coating, good processibility and very thin coating
- ▶ good air release and low gelling temperature
- ▶ good heat resistance and good transparency
- ▶ low moisture content and low heat loss

Viscosity Aging



Brookfield Viscometer
No.4 Spindle
20rpm

Formulation
PVC 100
DOP 70 phr

Polymer properties

<i>Property</i>	<i>Unit</i>	<i>Typical Value</i>	<i>Test Method</i>
Polymerization Degree	-	1300 ± 100	JIS 6721
K-value	-	69.7~73.0	JIS 6721
Apparent Bulk Density	g/cc	0.20~0.40	JIS 6721
Volatile Content	%	Max. 0.35	JIS 6721
Particle Size	%	100	100 mesh pass
BF viscosity(20rpm)	Pa.s	2	ASTM D
Viscosity at 500 sec ⁻¹	Pa.s	9	1824

BF viscosity test conditions:

PVC 100

DOP 70 phr

1 hours aged at 25 °C

Applications

KM-31 produces plastisols which are ideal for the manufacture of vinyl gloves by dip molding.

KM-31 plastisols are also ideal for the dip molding of vinyl gloves with very thin thickness at low oven temperatures and with excellent mechanical properties.

KM-31 can be applied by spread coatings coating, rotational and slush molding

The main applications are

- ▶ vinyl gloves with very thin thickness, transparency and medium-high mechanical properties
- ▶ rotational moldings, slush moldings and dip coatings with good mold release where medium-high mechanical properties are required

Guide formulations

If plastisol is made with KM-31, very excellent gloves can be produced. KM-31 can be used in wide application of gloves (sterile and Non-sterile, clear and color, pre-powered and powder etc.)

Vinyl Gloves	
KM-31	100 phr
DOP	60~ 100 phr
DOA	0 ~ 10 phr
Stabilizer(Ca-Zn Type)	2 ~ 3 phr
Diluent	as required
Pigment	as required

Toy	
KM-31	100 phr
Blend Resin	0~20 phr
DOP	75 phr
Epoxy Plasticizer	3 phr
Stabilizer	3 phr
Diluent	as required
Pigment	as required