

## General properties

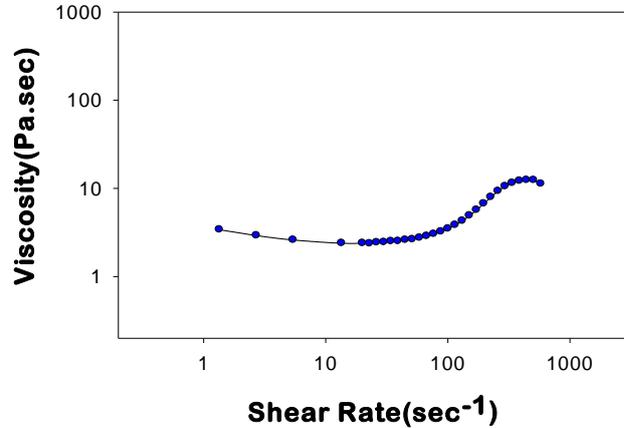
**KM-60** is a medium molecular weight micro-suspension type PVC homopolymer.

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.

- ▶ high clarity and gloss surface finish
- ▶ low water absorption
- ▶ good air release and low gelling temperature
- ▶ good mechanical properties
- ▶ good thermal/light stability with a wide range of standard stabilizers
- ▶ low viscosity, low viscosity aging rate and long shelf life with little tendency to sediment
- ▶ high electrical resistance

## 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	-	1250 ± 50	JIS K 6720-2
K-value	-	71	DIN 53726
Apparent density	g/cc	0.23 ± 0.05	ASTM D 1895
Volatile content	%	Max. 0.30	ASTM D 3030
Particle size	%	100	100 mesh pass
BF viscosity(20rpm)	Pa.s	10	ASTM D
Viscosity at 500 sec <sup>-1</sup>	Pa.s	12	1824

BF viscosity test conditions:

PVC 100

DINP 60 phr

1 hours aged at 25 °C

## Applications

**KM-60** produces plastisols which are well suited for the solid spread coating, especially clear coats with low plasticizer content and where high mechanical properties are required.

Due to the low viscosity, **KM-60** plastisols are also ideal for all types of coatings and for rotational molding, dip coating and the casting process.

**KM-60** plastisols can be applied by direct or transfer spread coating process, including drum gelling process.

The main applications are

- ▶ low plasticizer content spread coatings, especially high clarity top coats for floor covering, wall coverings, and coated fabric application requiring high mechanical properties.
- ▶ low-medium plasticizer content rotational moldings and dip coating with an excellent surface finish and high mechanical properties.
- ▶ slush molding process which produces rain boots, shoes, car arm rests and parts for the interiors of motor vehicles.

## Guide formulations

<b>Top layer of Floor Covering</b>	
KM-60	60~70 phr
Blend Resin	30~40
DINP(DOTP)	40~60
2nd plasticizer	5~10
Stabilizer	3

<b>Doll (Rotational Molding)</b>	
KM-60	100 phr
DINP(DOTP)	40~70
Epoxyed plasticizer	3
Filler(calcium carbonate)	0~30
Diluent	as required
Pigment	as required

<b>Slush Molding (Semi rigid product)</b>	
KM-60	70 phr
Blend resin	30
DINP(DOTP)	30~40
2nd plasticizer(TXIB)	5
Stabilizer(Ca-Zn)	3
Pigment	as required