

General properties

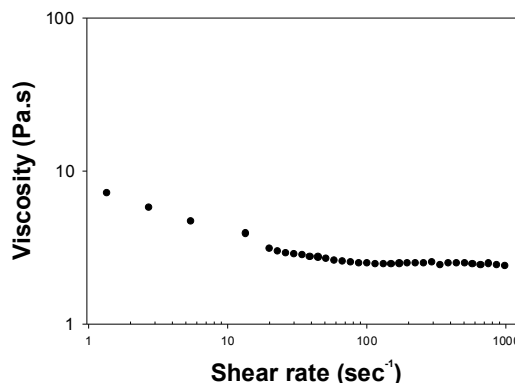
EM2070 is a fine particle size, medium molecular weight emulsion type PVC homopolymer.

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

Plastisol made from this polymer exhibit the following properties.

- ▶ high filler loading property
- ▶ good clarity and semi gloss surface finish
- ▶ good foaming properties with a wide range of stabilizers especially liquid K/Zn or Na/Zn type
- ▶ good rheological property with a wide range of shear rates
- ▶ good thermal/light stability with a wide range of stabilizers especially liquid Ba/Zn or Tin type
- ▶ low viscosity aging rate-long shelf life with little tendency to sediment

Rheological properties



1 hours aged at 25 °C

Formulation

PVC 100

DOP 60 phr

Polymer properties

Property	Unit	Typical Value	Test Method
Polymerization degree	-	1150 ± 50	JIS K 6720-2
K-value	-	69	DIN 53726
Apparent density	g/cc	0.28±0.07	ASTM D1895
Volatile content	%	Max. 0.30	ASTM D3030
Particle size	%	100	100 mesh pass
BF viscosity(20rpm)	Pa.s	4.7	ASTM D
Viscosity at 500 sec ⁻¹	Pa.s	2.5	1824

BF viscosity test conditions:

PVC 100

DOP 60 phr

1 hours aged at 25 °C

Applications

EM2070 produces plastisols which are ideal for the production of high solids content compact coating, including chemically foamed wall paper with low plasticizer content. EM2070 plastisols are also ideal for the spread coating of chemically blown foams with a fine cell structure produced at low-medium oven temperatures.

EM2070 can be applied by rotary screen or comma or transfer spread coating process.

The main applications are

- ▶ low-medium plasticizer and high filler content chemically blown foam coating for wallpaper and synthetic leather cloth especially in blend with EM3090
- ▶ low-medium plasticizer content compact spread coatings on to fabric including high clarity top coats for tarpaulins, protective clothing etc.
- ▶ spread coatings of compact thin coatings on high speed reverse roll and rotary screen and comma coaters
- ▶ low-medium plasticizer content rotational moldings and dip moldings with an excellent surface finish

Guide formulations

Wall Covering	
EM2070	100 ~ 50 phr
EM3090	0 ~ 50
DOP	50 ~ 70
BBP	0 ~ 10
Blowing agent(ADCA)	2 ~ 3
Filler(calcium carbonate)	30 ~ 70
TiO ₂	10
Kicker(ZnO)	0.5 ~ 1
Stabilizer(K/Zn or Ba/Zn)	2 ~ 3
Diluent	as required

Synthetic leather cloth	
EM2070	100 ~ 50 phr
EM3090	0 ~ 50
DOP	60 ~ 90
Epoxy plasticizer	10
Blowing agent(ADCA)	3
Filler(calcium carbonate)	30 ~ 50
Stabilizer(Ba/Zn)	2 ~ 3
Pigment	as required
Diluent	as required