

General properties

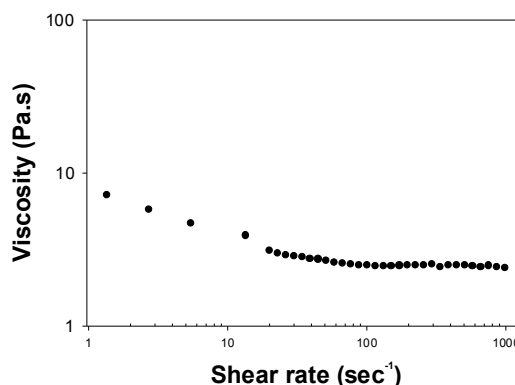
EM2070 is a fine particle size, medium molecular weight emulsion type PVC homopolymer.

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. 0.36	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