Hanwha Chemical

Sunshine of the Life

PVC Paste Resin (Homopolymer)

EM2070

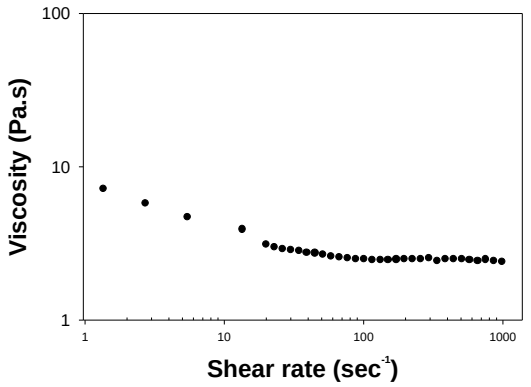
General properties

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 Ca/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
DINP 60 phr

Polymer properties

Property	*Unit*	*Typical Value*	*Test Method*
Polymerization degree	-	1150±100	JIS 6721
K-value	-	66.7~70.6	JIS 6721
Apparent 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	6.7	ASTM D
Viscosity at 500 sec^{-1}	Pa.s	3.6	1824

BF viscosity test conditions:

PVC 100

DINP 60 phr

1 hours aged at 25 °C

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Applications

EM2070 produces plastisols which are ideal for the production of high solids content compact coating, including chemically foamed wall paper with low plasicizer 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
DINP	50 ~ 70
TXIB	0 ~ 10
Blowing agent(ADCA)	2 ~ 3
Filler(calcium carbonate)	30 ~ 70
TiO_2	10
Kicker(ZnO)	0.5 ~ 1
Stabilizer(K/Zn or Ca/Zn)	2 ~ 3
Diluent	as required

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