Hanwha Chemical

Beyond Your Dream

PVC Paste Resin (Homopolymer)

EM3090

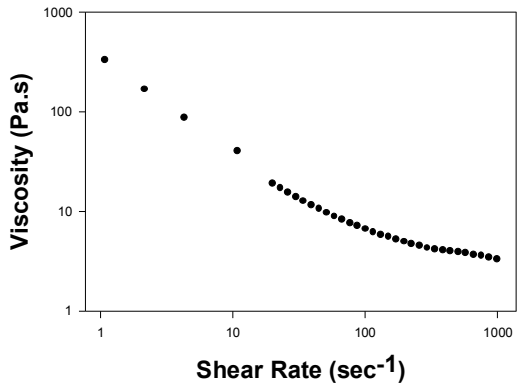
General properties

EM3090 is a fine particle size, medium molecular weight emulsion type PVC homopolymer.
It produces plastisol exhibiting high viscosity and yield value at low shear rate and pseudoplastic flow at high shear rates with medium-high plasticizer level (70-100 phr).

Plastisol made from this polymer exhibit the following properites.

- ▶ good foaming properties with a wide range of stabilizers especially liquid K/Zn or Na/Zn type
- ▶ low viscosity aging rate, long shelf life with little tendency to sediment
- ▶ good thermal stability with a wide range of standard stabilizers.
- ▶ fast gelation rate
- ▶ semi gloss surface finish

Rheological properties



1 hours aged at 25 °C

Formulation
PVC 100
DOP 70 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	87	ASTM D
Viscosity at 500 sec^{-1}	Pa.s	4	1824

BF viscosity test conditions:

PVC 100

DOP 70 phr

1 hours aged at 25 °C

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한화석유화학

The information given herein and other otherwise supplied to users is based on our general experience and where applicable, on the results of tests on samples of typical manufacture. However, because of the many factors which are outside knowledge and control, which can effect the use of these products, users must rely on their own judgment and we cannot accept liability for any injury, loss or damage resulting from reliance upon such information.

EM3090

Applications

EM3090 produces plastisols which are ideal for the spread coating of chemically blown foams, particularly high expansion-high thickness foams with a very fine closed cell structure at a wide range of oven conditions at medium-high plastisizer levels. It also produces high yield, high viscosity compact coating plastisols without the need to add thickening agents. ***EM3090*** can be applied by rotary screen or comma or transfer spread coating processes, or spraying.

The main applications are

- chemically blown foams of high thickness, low density and very fine closed cell structure
- medium-high plasticizer content chemical foam coats for synthetic leather cloth especially in blends with EM2070
- chemically foamed wall-coverings produced by rotary screen or comma or transfer spread coating processes especially in blends with EM2070
- direct or transfer coated compact coats onto wide mesh or net type fabrics especially where high adhesive strength is required
- high yield plastisols for automobile sealant applications applied by airless spray

Guide formulations

Wall Covering	
EM2070	80 ~ 50 phr
EM3090	20 ~ 50
DOP	60 ~ 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	80 ~ 50 phr
EM3090	20 ~ 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

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