Hanwha Chemical

Beyond Your Dream

TP-400M

Vinyl Chloride, Vinyl Acetate, Dicarboxylic Acid Terpolymer

Product Description

TP-400M is a low molecular weight terpolymer comprised of approximately 85% vinyl chloride, 14% of vinyl acetate and 1% of dicarboxylic acid. It is supplied as a powder.

Applications

Typical application for TP-400M :

-. Metallic Lacquers
-. Printing Inks
-. Industrial Coatings
-. Heat-sealable Lacquers
-. Masonry Paints

Properties

Properties	Unit	Results	Test methods
Molecular weight (Mw)	-	45,200	GPC
Degree of polymerization	-	430±30	JIS K-6720-2
K-value	-	50	-
VAM content	wt%	14.0 ±1	Hanwha –method
Dicarboxylic acid content	wt%	Approx. 1.0	Hanwha –method
Acid value	mg KOH/g	11.0 ±1	Hanwha –method
Bulk Density	g/㎤	0.66 ± 0.07	JIS K-6720-2
Volatile content	%	Max.4.0	JIS K-6720-2
Glass transition Temperature(Tg)	℃	74	DSC
Particle size distribution	%	100	42 mesh pass
Viscosity (MEK/Tol=1/1) •Resin 10% •Resin 20% •Resin 30%	cPs	 8 35 270	Brookfield Viscometer

Processing

TP-400M is the solution vinyl resin which is distinguished for the solubility with various kinds of organic solvent. It has good resistance for abrasion, water and chemical variation. It also has good adhesive strength and surface gloss.

It shows good adhesive properties for metal substance such as aluminum or steel as well as PVC as containing carboxyl group.

Ketone type such as cyclohexanone, MEK and MIBK is suitable for its solvent, and some aromatic hydrocarbon type like toluene and xylene can be used for the diluent.

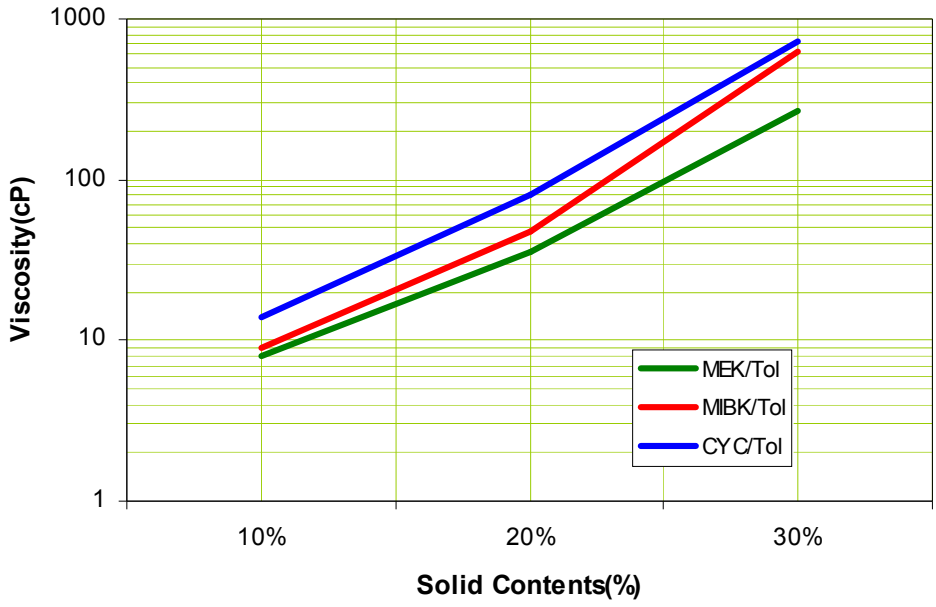
Beyond them, butyl acetate or ethyl acetate (ester type) can be used for the solvent, but it is required to increase the solving temperature or to mix with ketone type since its solubility is inferior to that of the ketone type.

Some plasticizer is suggested to be used for increasing the flexibility of film. TP-400M exhibits excellent properties being used with various kinds of plasticizers such as phthalates or adipates.

TP-400M can be used by blending with acrylic, ketone and epoxy resin as well as other vinyl resin since it suits with them very much.

Solution Viscosity

Solution Viscosity of TP-400M at 25℃



Storage

Store TP-400M under dry conditions and at room temperature below 25℃. Under these conditions, the product has a shelf life of at least one year, from the delivery date. If the material is kept beyond the recommended shelf life, it is not necessarily unusable, but the user should perform a quality control on the properties relevant to the application. The properties determined in our prerelease quality control may change during storage, depending on storage conditions, and deviate from the specification.

Safety and Handling

The Hanwha Chemical Corporation provides its customers with a product specific Material Safety Data Sheet (MSDS) to cover potential health effects, safe handling, use and transportation. Hanwha Chemical Corporation strongly encourage its customers to review MSDS on its products and other materials prior to their use.TP-400M is normally supplied as a power in 25kg polypropylene inner coated paper bag.
TP-400M is not formulated to contain any hazardous or regulated materials such as lead, cadmium, mercury, and chromium compounds. And Hanwha Chemical corporation guarantee that TP-400M do not include any hazardous or regulated materials during the manufacturing process. In addition, TP-400M is complied with FDA 21 CFR §175.300 & §176.170.

Properties

Further information and recommendations for processing can be obtained from our technical support staff and representatives.
The data and recommendations contained in this brochure represent the current state of our knowledge and serve as a guide only to our products and their potential applications. Therefore, no warranty of specific properties of the products mentioned herein nor of their suitability or fitness for a particular purpose is implied.
The information given in this brochure should be checked by preliminary trials because of conditions during processing over which we have no control.