

DOP PLASTICIZER

(Di-Octyl Phthalate)

Introduction

1. Definition of Plasticizer

Plasticizer is material incorporated in a PVC resin to increase its workability, flexibility (lower melt viscosity, temperature of TG or elastic modulus of plastic).

Therefore the selection of optimum plasticizer affects the successful use of PVC in many diverse applications.

Di-Octyl Phthalate(DOP) is the most popular plasticizer in the world and also provide the most desirable combination of performance, characteristics and low cost of any plasticizer family used in Vinyl resins

Calendering

- Sheet
- Film
- Synthetic Leather
- Tarpaulin

Extrusion

- Hose
- Wire & Cable Insulation
- Sandal
- ...

Injection

- Toy
- Shoe sole
- ...

Coating

- Industrial Glove
- Wall Paper
- .Vinyl gloves
- ...

DOP SPECIFICATION

Chemical name: Di-Octyl Phthalate

No	Items	Unit	Specification	Typical	Test method
1	Color	APHA	30 max.	10	JIS K 6751
2	Acid Value	KOH mg/g	0.03 max.	0.008	JIS K 6751
3	Volume Resistivity	Ω .cm(30 ⁰ C)	2.0*10 ¹¹ min	4.0*10 ¹¹	JIS K 6751
4	Specific Gravity	(20/20 ⁰ C)	0.986 ± 0.003	0.986	JIS K 6751
5	Acid value (after heating)	KOH mg/g	0.2 max	0.05	JIS K 6751
6	Refractive index	Nd20*25 ⁰ C	1.485 ± 0.003	1.485	JIS K 6751
7	Heating loss	Wt%	0.1 max	0.060	JIS K 6751
8	Water content	Wt%	0.1 max	0.045	ASTM E-203
9	2-EH content	Wt%	0.02 max	0.018	GC
10	Ester content	Wt%	99.5% min	99.8	GC

Physical properties (for reference purpose only)

No	Items	Unit	Specification	Typical	Test method
1	Molecular Weight		391	/	/
2	Boiling Point	⁰ C	385	/	/
3	Freezing Point	⁰ C	-55	/	/
4	Flash Point	⁰ C	206	/	/
5	Dynamic Viscosity at 40 ⁰ C	Cp	26 ± 3	26	ASTM D445