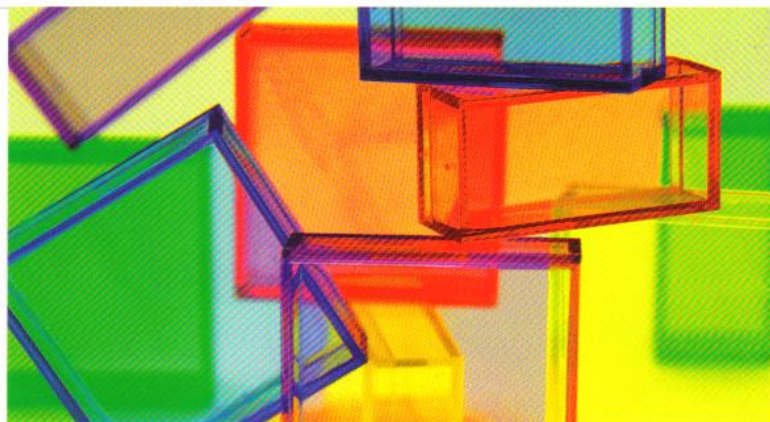


PLASTICS OILS



PRODUCT DESCRIPTION. Plastics oils are highly refined, low-volatility mineral oils that consist of saturated aliphatic and alicyclic nonpolar hydrocarbons. They are hydrophobic, colourless, tasteless, odourless, chemically inert, and have excellent UV stability.

APPLICATIONS. Sonneborn plastics oils are added to crystalline polystyrene (PS), high impact polystyrene (HIPS), polyolefins, thermoplastic elastomers, and various other polymers to improve and control the melt flow rate of the finished polymer.

Plastics oils are also employed as internal lubricants and/or external lubricants in PS, PVC, PP, PE, TPE, and numerous polymer formulations.

Other applications include: plasticizing agent, catalyst carrier, extender oil, mold release agent, and pigment dispersing agent.

TYPICAL PROPERTIES OF PLASTICS OILS

PROPERTIES GUARANTEED	TEST METHOD	HYDROBRITE® 380 EU	PLASTIC OIL 330
Density @ 20°C, kg/m ³	ASTM D-1298	850 - 880	850 - 880
Kinematic Viscosity @ 40°C, cSt	ASTM D-445	66 - 75	66 - 75
Carbonizable Substances	Eur. Pharm.	PASS	PASS
Color, saybolt	ASTM D-156	+30 Min.	+30 Min.
Distillation, 5%, °C @ 10 mmHg	ASTM D-1160	—	278 Min.
Pour Point, °C	ASTM D-97	-9 Max.	-9 Max.
Paraffinic Carbon, %	ASTM D-3238	65 - 75	65 - 75
Naphthenic Carbon, %	ASTM D-3238	35 - 25	35 - 25
Flash Point, COC, °C	ASTM D-92	220 Min.	220 Min.

Hydrobrite® 380 EU and Plastic Oil 330 are Mineral Oils meeting requirements of the European (EuP), United States (USP) and Japanese Pharmacopoeia (JP). Moreover they are in compliance with the purity requirements of former monographs of the BP, DAB or French Codex, FDA requirements as per 21 CFR 178.878 and CFR 178.3620(a) and requirements according to the European Directive for plastic materials intended to come into contact with foodstuffs.