Petrochemicals
Plasticizers

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Palamoll® 656

High viscosity polymeric plasticizer that is compatible with PVC. Resistant to oils, fats, aliphatic hydrocarbons and water. It has only a slight tendency to migrate into plastics and adhesives.

BASF Registered Name Palamoll® 656

CAS No. 208945-12-4

Average Molecular Weight 6700

Product Specifications

	Value	Test Method
Specific Gravity @ 25°/25 °C	1.079 - 1.099	ASTM D-4052
Viscosity @ 25 °C, cP	7,000 – 10,000	ASTM D-445
Acid Number, mg KOH/g (maximum)	1.5	ASTM D-1045
Water, by weight (% maximum)	0.1	ASTM E-203
Color, Pt-Co Units (APHA, maximum)	150	ASTM D-5386
Refractive Index n^{25}_{D}	1.467 - 1.470	ASTM D-1045
Suspended Matter	COLSFFM*	visual

*Clear Oily Liquid Substantially Free of Foreign Material

Typical Physical Properties

The following data were measured in the BASF Corp. laboratory. They do not represent any legally binding guarantee of properties for our sales product.

	Value
Pour point, °C	-18
Flash point (COC), °C	274
Odor	mild characteristic
Surface Tension, mN/m	30.8
Solution Temperature, °C	158
Plastisol Gelation Temperature, °C	139
Vapor Pressure @ 20 °C, mbar	< 0.1
Solubility in Water @ 25 °C, mg/L	< 0.1
Ignition Temperature, °C	425
Refractive Index $^{\eta}D20$	1.468

Viscosity & Density Data

Temperature (°C)	Dynamic viscosity (cP)	Density (g/cm³)
10	26,200	1.101
20	11,400	1.093
40	2,990	1.078
60	1,060	1.063
80	469	1.048

Description

Palamoll® 656 is a high viscosity polymeric plasticizer that is compatible with PVC. It is based on adipic acid and polyhydric alcohols. It is resistant to oils, fats, aliphatic hydrocarbons and bitumen. It is soluble in organic esters, ketones, ethers, aromatic and chlorinated hydrocarbons.

Applications

Palamoll® 656 demonstrates low migration into other plastics or adhesives. It is highly resistant to animal, mineral and vegetable fats and oils and is used for protective aprons, gloves and boots. It is used in roofing systems and expansion joint tapes where bitumen, water and sunlight resistance is important. Palamoll® 656 is used in films that are coated with an adhesive such as electrical tape, decals and decorative film. It should be pre-heated to 80 °C before addition to the blender. The mixing cycle should continue until a temperature of 150 - 170 °C is reached, depending on the amount of plasticizer. It has a higher molecular weight than monomeric plasticizers and must be processed at a higher fusion temperature.

Safety

Based on toxicity studies, Palamoll® 656 has a low order of toxicity and does not require special handling. Handle in accordance with good industrial hygiene and safety practices. Avoid eye contact by wearing personal protective equipment. If eye contact occurs, wash with flowing water and contact physician.

Avoid repeated or prolonged skin contact. Avoid breathing vapors by providing adequate ventilation.

Always refer to the Safety Data Sheet (SDS) for detailed information on safety.

Storage and Handling

Palamoll® 656 can be stored for one year at temperatures below 40°C, if moisture is excluded.

If Palamoll® 656 is stored below 20 °C or for a long time at room temperature, it can become wax-like, cloudy and even solidify. This does not affect the properties of the ester. Upon reheating to 30 °C, Palamoll® 656 returns to a liquid state and conforms to its product specifications.

Packaging

Palamoll® 656 is available in bulk tank trucks or drums.

Contact Information

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