

Plasticizer DOTP
Diethyl Terephthalate

Technical Data Sheet

Diethyl Terephthalate (DOTP)

DOTP is an organic compound, a transparent oily liquid, insoluble in water, soluble in general organic solvents. DOTP is an excellent primary plasticizer for polyvinyl chloride (PVC) plastics. Compared with the commonly used diisooctyl phthalate (DOP), it has the advantages of heat resistance, cold resistance, low volatility, anti-extraction, flexibility and good electrical insulation performance. It shows excellent durability, soap water resistance and low temperature flexibility in the products.

Chemical Data:

| | Chemical Name | Molecular Formula | CAS No. | Class | EINECS No. |
|------|-----------------------|--|-----------|-------|------------|
| DOTP | Diethyl Terephthalate | C ₂₄ H ₃₈ O ₄ | 6422-86-2 | / | 229-176-9 |

Applications:

- > DOTP is an excellent main plasticizer for polyvinyl chloride (PVC) plastics.
- > Due to its low volatility, DOTP can fully meet the temperature resistance requirements of wires and cables, and can be widely used in 70°C resistant cable materials (IEC standard of the International Electrotechnical Commission) and various other PVC soft products.
- > In addition to being used as a plasticizer for cable materials and PVC, DOTP can also be used in the production of artificial leather films. In addition, it has excellent compatibility and can also be used as a plasticizer for acrylonitrile derivatives, polyvinyl butyral, nitrile rubber, cellulose nitrate, etc. It can also be used as a plasticizer for synthetic rubber, a coating additive, a lubricant for precision instruments, a lubricant additive.

Physical Properties:

| Item | Value | Unit |
|--------------------|--------------------------|-----------------------------|
| Appearance | Transparent Oily Liquid | / |
| Color (APHA/Pt-Co) | 30 Max | / |
| Purity | 99.5 Min | % |
| Density | 0.981-0.985 | g/cm ³ (@ 20°C) |
| Molecular Weight | 390.55 | g/mol |
| Flash Point | 210.00 Min | °C |
| Moisture | 0.03 Max | % |
| Acidity | 0.02 Max | mg KOH/g |
| Volume Resistivity | 2.0×10^{10} Min | Ω.cm |

Storage:

Product should be stored in a dry place away from direct sunlight in sealed, original packaging.

Standard Packing:

- 200kgs in Iron Drums
- 1,000kgs in IBC Drums
- 23,000kgs in Flexitank