

# Polymer Add (Thailand) Co.,Ltd.

Office - 106, Chalarempriyat, Lor 9, Soi 22, Yak 5, Nongbon, Prawet, Bangkok, Thailand 10250

Factory - 188/3, Moo 8, Tambon Bangpu Mai, Amphoe Muang Samut Prakan, Samutprakan, Thailand 10280

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## TECHNICAL DATA SHEET (TDS)

### DIPHENYL ISOPHTHALATE (DPI)

#### 1. Product Identification

Item	Details
Chemical Name	Diphenyl Isophthalate
Synonyms	Isophthalic acid diphenyl ester
CAS No.	744-56-5
Molecular Formula	C <sub>20</sub> H <sub>14</sub> O <sub>4</sub>
Molecular Weight	318.32 g/mol
Product Form	Micronized solid powder

#### 2. Product Description

Diphenyl Isophthalate is a high-melting aromatic ester supplied in micronized solid form for use as a solid plasticizer and functional polymer modifier.

It provides permanent plasticization, enhanced thermal stability, and low migration in PVC, engineering thermoplastics, and high-temperature polymer systems.

#### 3. Typical Physical Properties

Property	Typical Value
Appearance	White to off-white powder
Odour	Odourless
Melting Point	150 – 155 °C
Bulk Density	0.45 – 0.70 g/cm <sup>3</sup>
Solubility in Water	Insoluble
Solubility in Organic Solvents	Soluble in aromatic solvents
Thermal Behaviour	Stable under polymer processing conditions

*Values are typical and not intended as specifications.*

#### 4. Particle Size Characteristics (Micronized Grade)

Parameter	Typical Range
D50	5 – 12 µm
D90	< 25 µm
D100	< 45 µm

Micronisation ensures uniform dispersion and consistent functional performance in polymer matrices.

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## 5. Primary Applications

Application Area	Function
PVC Compounds	Solid plasticizer / co-plasticizer
Engineering Thermoplastics	Internal modifier
Styrenic & ABS Systems	Stress-relief additive
High-Temperature Polymers	Permanent thermal modifier

## 6. Processing & Handling

- Suitable for dry blending and masterbatch preparation
- Compatible with standard compounding and extrusion equipment
- Best incorporated during high-shear mixing or melt compounding

## 7. Storage & Shelf Life

Item	Recommendation
Storage	Cool, dry, well-ventilated area
Container	Keep tightly closed
Shelf Life	24 months under recommended conditions

## 8. Packaging

- 20–25 kg bags
- Other packaging available on request

## 9. Regulatory & Compliance (Indicative)

- Intended for industrial use
- Not classified as SVHC under REACH (indicative)
- Detailed regulatory status available upon request

## 10. Disclaimer

This information is provided as guidance for formulation development. Users should evaluate suitability for their specific applications.