### Polymer Add (Thailand) Co.,Ltd.

Office - 106, Chalaremprakiat, 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

Mobile - Thai: 0804531391, English: 0839415475, E-mail - contact@polymeradd.co.th



# TECHNICAL DATA SHEET ZNBZ-553

#### **PRODUCT CLASSIFICATION**

Chemical Name	ZINC BENZOATE (MICRONIZED)
Grade Name	ZNBZ-553
CAS No.	553-72-0
HS Code	2916.31.90
EINECS No.	209-045-9
Molecular Formula	$C_{14}H_{10}O_4Zn$
Molecular Weight	307.61 g/mol
Synonyms	Zinc dibenzoate; Benzoic acid, zinc salt

#### **PHYSICAL & CHEMICAL PROPERTIES**

Property	Typical Value / Description	Test Method
Appearance	White to off-white fine powder	Visual
Odor	Faint aromatic	Sensory
Assay (as Zn(C <sub>6</sub> H <sub>5</sub> COO) <sub>2</sub> )	≥ 99.0%	Titration
Zinc Content	21.0 – 22.5%	Complexometric
Moisture Content	≤ 1.0%	Oven Drying (105 °C)
pH (1% dispersion)	6.0 – 7.5	pH Meter
Melting Point	> 280 °C (decomposes)	Capillary
Solubility in Water	Slightly soluble	Literature / Observation
Solubility in Organic Solvents	Soluble in alcohols	Observation
Bulk Density	0.30 – 0.50 g/cm <sup>3</sup>	Tapped Density
Particle Size (D50)	8 – 12 μm	Laser Diffraction
Particle Size (D90)	≤ 25 µm	Laser Diffraction

The commercial product specification may include only a selection of the properties listed above; this additional data is provided for general technical reference.

#### HEAVY METALS (EU REGULATION 10/2011 - CONTENT LIMITS IN ADDITIVES)

Element	Typical Limit	Test Method
Lead (Pb)	≤ 5 ppm	ICP, AAS, XRF
Cadmium (Cd)	≤ 1 ppm	ICP, AAS
Mercury (Hg)	≤ 1 ppm	ICP, CV-AAS
Arsenic (As)	≤ 1 ppm	ICP, AAS

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#### **USES / APPLICATION**

Industry	Commercial Application / Uses (Micronized Grade)
Plastics / Polymers	Nucleating agent in PP, PE; acid scavenger; crystallization enhancer
Masterbatches	Dispersion aid and thermal modifier
Adhesives	Heat stabilizer in PSA and HM adhesives
Coatings	Functional additive in specialty and heat-resistant coatings
Inks & Pigments	Filler and stabilizer for high-temperature pigment dispersions

#### **US FDA 21 CFR LISTING**

CFR Section	Title / Description
175.300	Resinous and polymeric coatings – permitted as additive
178.2010	Stabilizers and lubricants for polymers

#### **COLOUR IMPACTING IMPURITIES**

Element	Typical Max Limit (ppm)	Test Method
Iron (Fe)	≤ 100 ppm	ICP, AAS, XRF
Manganese	≤ 30 ppm	ICP, AAS, XRF
Copper (Cu)	≤ 20 ppm	ICP, AAS, XRF
Nickel (Ni)	≤ 10 ppm	ICP, AAS, XRF
Chromium	≤ 10 ppm	ICP, AAS, XRF

#### PRODUCT PERFORMANCE IMPACTING IONS / IMPURITIES

Ion / Element	Typical Max Limit (ppm)	Test Method
Sodium (Na)	≤ 100 ppm	ICP, AAS, XRF
Potassium (K)	≤ 100 ppm	ICP, AAS, XRF
Calcium (Ca)	≤ 300 ppm	ICP, AAS, XRF
Magnesium (Mg)	≤ 200 ppm	ICP, AAS, XRF
Chloride (Cl <sup>-</sup> )	≤ 100 ppm	Ion Chromatography
Sulfate (SO <sub>4</sub> <sup>2-</sup> )	≤ 100 ppm	Ion Chromatography

#### Disclaimer:

Zinc Benzoate is intended for industrial use only. It is not suitable for pharmaceutical, cosmetic, or medical implant use. For food-contact applications, regional regulations must be verified. Typical values are not specifications unless confirmed in writing.

Month of Creation: July 2025 Month of Review: July 2027

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