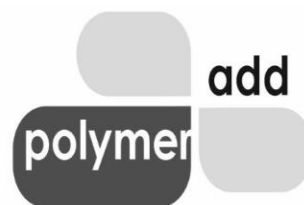


# Polymer Add (Thailand) Co.,Ltd.

Office - 106, Chalarempriakiat, 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](mailto:contact@polymeradd.co.th)



## TECHNICAL DATA SHEET

### VCIGUARD MM55

*Micronized Additive Blend for Multi-Metal Corrosion Inhibitor Systems (VCI)*

#### Product Description

VCIGUARD MM55 is a high-performance micronized vapor corrosion inhibitor (VCI) blend formulated for protection of both ferrous and non-ferrous metals. It combines fast-acting and long-lasting inhibitors with flow enhancers, a dispersion aid, and inert fillers to deliver balanced, slow-release corrosion protection. The blend is suitable for use in PE, PP, EVA, PET films, foams, molded plastics, nonwoven wraps, and VCI-coated paper products.

#### Micronized Ingredients

Chemical Name	Function	% Composition	CAS Number
Dicyclohexylammonium Benzoate	Long-lasting corrosion inhibitor – steel, aluminum, brass	15.00%	53540-12-8
Morpholinium Benzoate	Fast-acting vapor-phase inhibitor – synergistic for Cu, Zn, steel	15.00%	31138-65-5
Sodium Benzoate (Micronized)	Base corrosion inhibitor – steel and ferrous metals	30.00%	532-32-1
GMS 90% (Glycerol Monostearate)	Processing aid and waxy carrier – improves dispersion	10.00%	31566-31-1
Hydrophobic Fumed Silica (R972)	Anti-caking agent; moisture scavenger; flow enhancer	1.00%	67762-90-7
Micronized Calcium Carbonate	Inert filler – improves bulk density and flow	29.00%	471-34-1
	<b>TOTAL</b>	<b>100.00%</b>	

#### Typical Properties

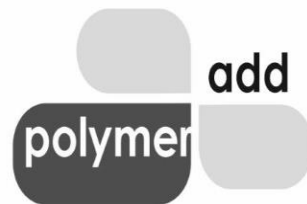
Property	Value / Description
Appearance	Fine white to light beige powder
Odour	Mild to slightly amine-like
Particle Size (D90)	< 10 microns
Bulk Density	~0.38–0.46 g/cm <sup>3</sup>
Melting / Decomposition Range	~55–410 °C (multi-phase)
Compatibility	LDPE, LLDPE, PP, EVA, PET, paper coatings, nonwovens
Moisture Content	< 0.5%

# Polymer Add (Thailand) Co.,Ltd.

Office - 106, Chalarempriakiat, 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](mailto:contact@polymeradd.co.th)



## Applications

- VCI films and bags for long-term protection of mixed metal components
- Injection-molded or extruded VCI-enabled plastic parts
- VCI masterbatches for use in PE, PP, EVA, or PET resins
- VCI-coated kraft paper, board, or laminated flexible packaging
- Foams, pads, and pouches for sensitive tools, parts, and electronics

## Processing Guidance

- Ensure pre-drying of hygroscopic components if ambient RH >60%
- Blend uniformly with resin in high-speed mixers or twin-screw extruders
- Recommended usage: 1.0–5.0% depending on final application and protection duration
- Avoid prolonged heating above 180 °C to minimize degradation of VCI salts
- Use with dust control and local exhaust ventilation during handling

## Packing Instructions

Packing Type	Description
Bag Type	Kraft Paper Bag with Inner PE Liner
Net Weight	20 Kg
Palletization	40 Bags per Pallet (800 Kg net weight)
Optional	Foil-lined or vacuum-sealed drums for high-humidity protection
Labeling	Product Name, Code, Batch No., Mfg. Date, Expiry
Shelf Life	24 months in sealed, dry condition
Storage	Store in a cool, dry place below 30 °C; avoid humidity and direct sunlight