ZHONGYAOTECH
XINGTAI ZHONGYAO CHEMICAL

PRODUCT BROCHURE
2026 / 01



SURFACE MODIFIED MDH

Modified MDH for PE.

Silane-treated magnesium hydroxide that keeps 70 % of impact strength at 60 wt% loading — the difference between a compound that passes and one that fails.

LOADING	IMPACT	UL94	D50
55–65 %	> 70 %	V-0	1.5–2.5 µm

At 60 % filler the polymer is the minority phase. Surface chemistry is the only **thing left to tune**.

>70%

IMPACT RETAINED

At 60 wt% loading, against roughly 30 % untreated.

55–65%

LOADING

for UL94 V-0 at 1.6 mm in PE/EVA.

3–5×

INTERFACE STRENGTH

Silane coupling against untreated filler.

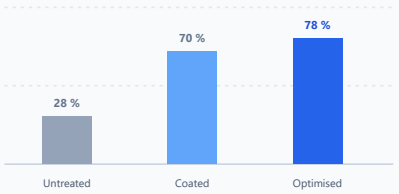
01 — MECHANISM

Why treatment decides the mechanical result.

Untreated magnesium hydroxide is hydrophilic; polyethylene is not. At high loading the interface becomes the weak point and impact strength collapses.

Silane coupling changes the surface energy so the filler bonds to the matrix. The flame chemistry is unchanged — the mechanical result is not.

Compare. Treatment is matched to the resin system. Vinyl silane for PE and EVA, amino silane for polyamide blends.



CHARPY IMPACT AT 60 WT% LOADING — INDICATIVE

PROCESS

Processing → Ignition → Char

Impact retention — Charpy impact at 60 wt% loading — indicative

IMPACT RETAINED
> 70 %
vs ~30 %

DISPERSION FINES
Low
vs High

MELT VISCOSITY
Lower
vs Higher

02 — SPECIFICATION

Controlled batch to batch.

Parameter	Standard value	Method
Mg(OH)2 Content	**≥ 99.5%**	Batch COA
Surface Treatment	**Silane/Stearic Acid**	Batch COA
Oil Absorption	**≤ 35 ml/100g**	Batch COA
Whiteness	**≥ 98%**	Batch COA

Trial guidance

Treated grades behave differently in a corotating twin-screw — feeding position matters. We supply a short processing note with every trial batch.

SUPPLY

Packaging	**25 / 1 000 kg**
Minimum order	**1 t**
Lead time	**3–7 days**
Grade code	**Modified-MDH-PE**

CAS 1309-42-8 · Batch COA with every shipment. TDS and SDS on request.

INCOMING

Ore assay

Every lot screened for Fe, Ca, Si before calcination.

IN PROCESS

Activity + LOI

Sampled during production against the batch target.

BEFORE SHIPMENT

Full COA

Complete release testing, third-party reports on request.

03 — APPLICATIONS

Where it is specified.



01

PE compounds

High-loading flame retardance



02

Cable sheathing

Mechanical retention



03

Sheet and film

UL94 V-0



04

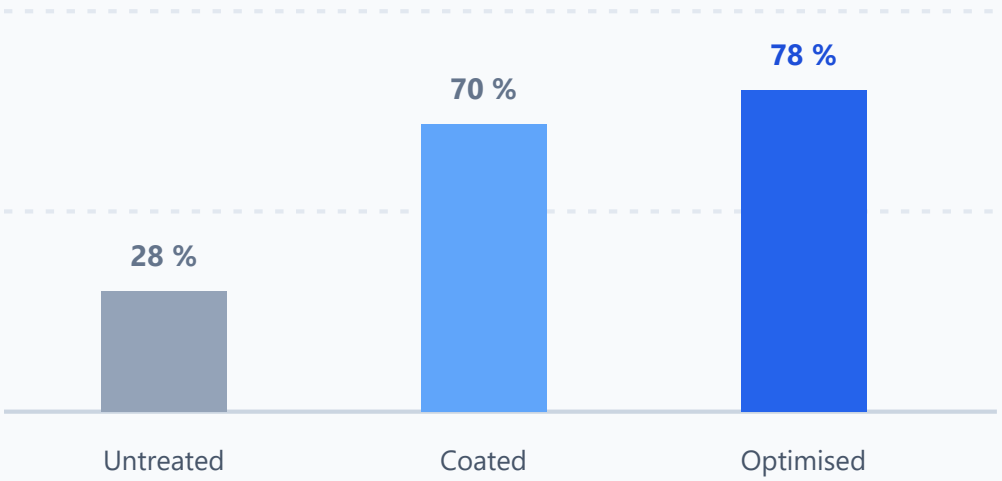
Custom treatment

Matched to resin

Dosage and loading figures are starting points for formulation trials. Final performance depends on the complete compound and test conditions.

04 — PERFORMANCE

Loading against performance.



CHARPY IMPACT AT 60 WT% LOADING — INDICATIVE

Property	Treated	Untreated
Impact retained	**> 70 %**	~30 %
Dispersion fines	**Low**	High
Melt viscosity	**Lower**	Higher
Cost	**Higher**	Lower

PACKAGING

25 kg PE-lined PP woven bag, palletised on request.

1 000 kg jumbo bag for bulk compounding lines.

LOGISTICS

20' FCL load	**20–24 t**
Port of loading	**Tianjin / Qingdao**
Incoterms	**FOB / CIF / CFR**
HS code	**2519.90**

05 — SUPPLY

Batch traceable. Documented every time.

Every shipment carries a batch-specific COA. TDS, SDS and REACH statements are issued on request. Production is ISO 9001:2015 certified.

50,000 t
ANNUAL CAPACITY

50+
EXPORT COUNTRIES

1 t
MINIMUM ORDER

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Specifications are typical values and do not constitute a batch release certificate. Confirm acceptance criteria against the batch COA and the TDS in force at the time of order.

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