ZHONGYAOTECH
XINGTAI ZHONGYAO CHEMICAL

PRODUCT BROCHURE
2026 / 01



PHOTOVOLTAIC GRADE

MDH for EVA Film.

Flame retardant for solar encapsulant that holds above 90 % transmittance through 25 years of UV exposure.

$Mg(OH)_2$	HAZE	LOADING	UV
≥ 99.5 %	< 5 %	55–65 %	25 years

An encapsulant has one job: stay **clear** for 25 years while the module gets **hotter every summer**.

>90%

TRANSMITTANCE

Retained after accelerated UV ageing.

<5%

HAZE

Optical clarity requirement for module efficiency.

85/85

DAMP HEAT

1 000 h at 85 °C / 85 % RH without delamination.

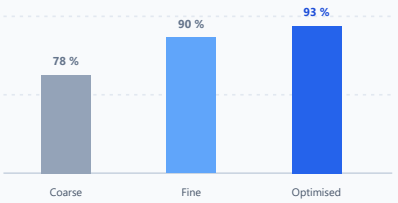
01 — MECHANISM

Particle size decides whether the film is clear.

Light scattering is governed by particle size relative to wavelength. Above roughly 200 nm the film turns hazy and module output drops.

The grade is therefore milled and classified tightly, with dispersion controlled again at compounding — agglomerates of a few microns ruin an otherwise clear film.

Compare. Also specified for anti-PID behaviour: ionic content affects potential-induced degradation in the field.



AFTER 2 000 H UV — INDICATIVE

PROCESS

Processing → Ignition → Char

Transmittance retention — After 2 000 h UV — indicative

D50	HAZE	NA⁺
0.8–1.2 µm	**< 5 %**	**≤ 0.01 %**
vs 1.5–2.0 µm	vs 8–15 %	vs Not specified

02 — SPECIFICATION

Controlled batch to batch.

Parameter	Standard value	Method
Mg(OH)2 Content	**≥ 99.9%**	Batch COA
Fe	**≤ 10 ppm**	Batch COA
Transmittance Impact	**Minimal**	Batch COA
D50	**Nanometer grade**	Batch COA

Optical support

Haze and transmittance data per batch on request. Trial material is supplied in the same D50 band as production.

SUPPLY

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

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

EVA encapsulant

Module lamination



02

Backsheet

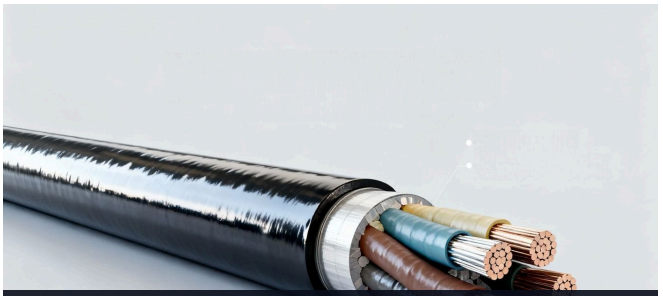
Flame resistance



03

Module assembly

Process compatibility



04

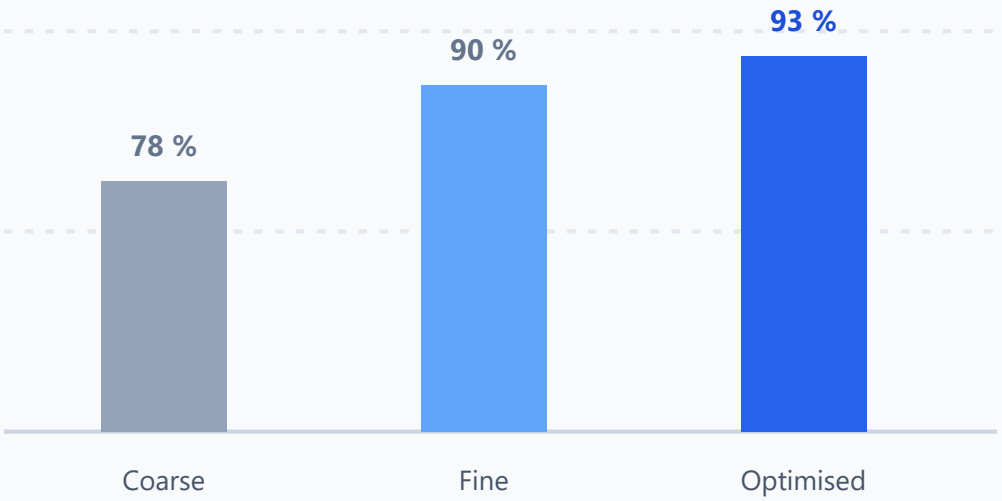
Solar cable

LSZH jacket

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.



AFTER 2 000 H UV — INDICATIVE

Property	This grade	Standard MDH
D50	**0.8–1.2 µm**	1.5–2.0 µm
Haze	**< 5 %**	8–15 %
Na^+	**≤ 0.01 %**	Not specified
Use	**PV encapsulant**	General FR

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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