ZHONGYAOTECH
XINGTAI ZHONGYAO CHEMICAL

PRODUCT BROCHURE
2026 / 01



HOSE COMPOUND GRADE

MgO for Rubber Hoses.

Anti-scorch and oil resistance for NBR, CSM and FKM hoses — volume change below 5 % after 168 h in Fuel C.

MGO	ACTIVITY	SWELL	D50
≥ 95 %	100–140 s	< 5 %	2–5 µm

A hose fails from the inside.
The acid is already there —
the only question is
whether you neutralised it.

<5%

VOLUME CHANGE

Fuel C, 60 °C, 168 h immersion.

2–3×

SERVICE LIFE

Against unbuffered compounds in the same test.

100–140 s

ACTIVITY

Citric acid method, matched to cure system.

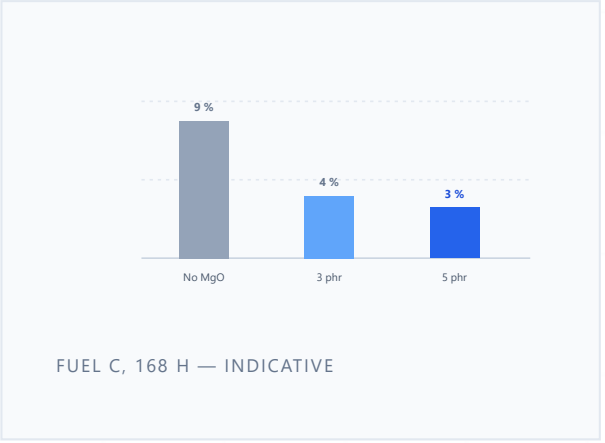
01 — MECHANISM

Protecting the inner tube.

Fuel and oil systems generate acidic species that attack the elastomer from the inside. Magnesium oxide absorbs them before they reach the polymer backbone.

Because the reaction consumes the filler slowly, activity is matched to the service temperature: hotter service needs a slower, more persistent grade.

Compare. For FKM, the grade must be very low in calcium — free lime attacks the fluoroelastomer network.



FUEL C, 168 H — INDICATIVE

PROCESS

Mixing → Cure → Service

Volume swell — Fuel C, 168 h — indicative

ACTIVITY
100–140 s
vs 160–200 s

DOSAGE
3–5 phr
vs 2–4 phr

BEST FOR
Hose inner tube
vs Adhesives

02 — SPECIFICATION

Controlled batch to batch.

Parameter	Standard value	Method
MgO Content	**≥ 95.0%**	Batch COA
Activity	**100-140 s**	Batch COA
CaO	**≤ 1.2%**	Batch COA
Particle Size	**Super Fine**	Batch COA

Matched to service

Tell us the fluid, temperature and hose construction. Activity and fineness are then selected against the cure system.

SUPPLY

Packaging	**25 / 1 000 kg**
Minimum order	**1 t**
Lead time	**3–7 days**
Grade code	**MgO-Rubber-Hoses**

CAS 1309-48-4 · 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.

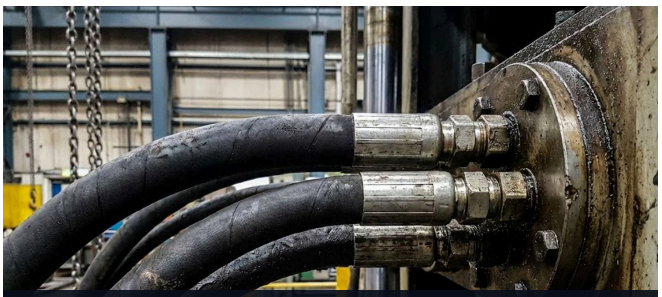
BEFORE SHIPMENT

Full COA

Complete release testing, third-party reports on request.

03 — APPLICATIONS

Where it is specified.



01

Automotive fuel hose

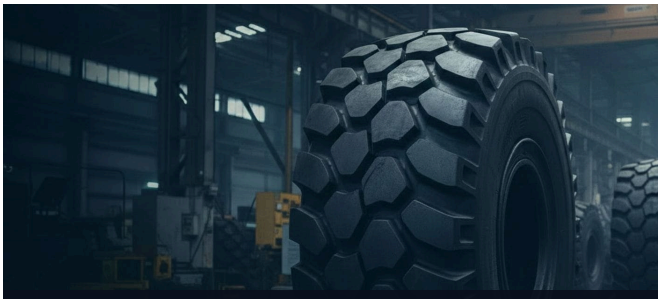
Fuel C resistance



02

Brake hose

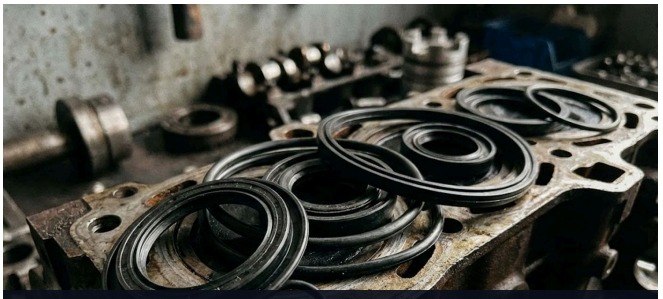
Chemical ageing



03

Industrial hose

Acid media



04

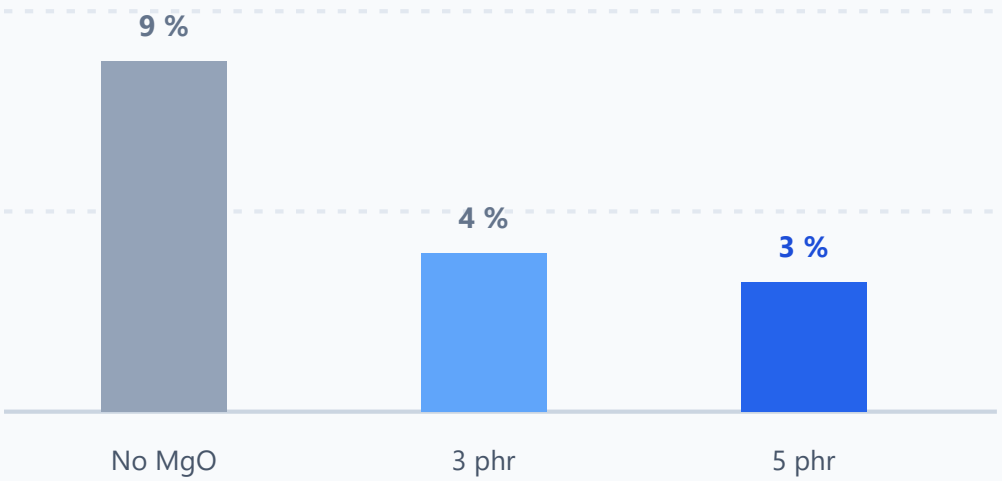
O-rings and seals

Compression set

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.



FUEL C, 168 H — INDICATIVE

Property	This grade	Active MgO
Activity	**100–140 s**	160–200 s
Dosage	**3–5 phr**	2–4 phr
Best for	**Hose inner tube**	Adhesives
CaO	**≤ 1.0 %**	≤ 1.0 %

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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