

CORIUM Z190 Superior Gasketing Compound

SUPER GASKETTING COMPOUND:

Corium Z190 is engineered to replace fully 98% of conventional, old-fashioned gasketing materials that offer limited life and performance. It replaces most types of cork, paper, asbestos, felt and metal gaskets and offer marked seal performance improvements.

Corium Z190 can be used on virtually all types of flanges, cover plates, hose connections and threaded assemblies, and is recommended for:

- Oil Pans & Pumps
- Water Pumps and Housings
- Thermostat Housings
- Timing-Case and Valve Covers
- Transmission Pans
- Camshaft Rear Covers

SUPERIOR FEATURES FOR MAINTENANCE REQUIREMENTS:

Corium Z190 can be used either to act as an "extra seal" gasket insurance, with existing gaskets; or as replacements for gaskets. It will perform the following applications easily.

Corium Z190 can be utilized to make:

- Formed-in-place oil pan, pump and electric motor gaskets.
- Gaskets for gearboxes, machine covers, gauges, and thermostat housings and to prevent oil and water leakage.
- Gaskets for electrical control boxes to seal out moisture and water.
- Quick, on-the-spot replacement gaskets
- Custom gaskets and seals for old or damaged motors, engines, pumps, power tools, machinery, etc.

It is also highly effective to form:

- Zero-thickness Gaskets to preserve crankshaft alignment (in chain saws, etc)
- Seals between steel channel and brackets of plating machines, to prevent corrosive plating liquids from oxidizing bolt threads.
- Gaskets and seals for rear axle assemblies.
- Seal covers for electronic and optical units to waterproof them.

Corium Z190 can also be used to weatherproof, protect and insulate in such applications as:

- Improving or replacing tractor and truck cab door and window seals.
- Filling slots in lathe collets.
- Insulating high voltage wires.
- Sealing and waterproofing cable connectors, motors, switches, Windings and cover plates.
- Potting electrical power supplies, strobes and lamps.
- Sealing electrical wires that run through walls.

Corium Z190 Super Gasketing Compound, when fully cured and washed meets the U.S. FDA regulation No. 21CFR 177.2600. It is also certified to U.S. Military Specification MIL-A-46106A, Amend. 2, Type 1. Withstands temperatures from

- 60°F up to 450°F (-51°C to 232°C).

HOW TO APPLY

Corium Z190 replaces virtually every type of cork, felt, rubber, metal, paper and asbestos gaskets and can be used on flanges, cover plates, hose connections and threaded assemblies.

PREPARATION:

1. Remove old gasket or gasket sealant with Corium Z187 Gasket Remover.
2. After removal, thoroughly clean surface to remove oil or grease with Corium Z129.
3. Let surface dry.

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Magna Industrial reserves the right to modify or change this product for purposes of improving its performance characteristics.

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|-------------|-------------|--------------|------------------------------|----------------|
| CPIM Z190.2 | Version 1.0 | Revision 1.0 | Rev. Date: February 17, 2000 | Reference: LUN |
|-------------|-------------|--------------|------------------------------|----------------|

4. Where skin or eye contact may occur, wear safety goggles and/or rubber gloves.

APPLICATION:

1. Remove plug of cured Corium Z190 from applicator tip by pulling up and outward.
2. Hold Corium Z190 applicator at approximately 45° to surface and apply a continuous bead of about 1/16" to 1/8" (1.5 to 3 mm) by pushing nozzle to one side, encircling all bolt holes.
3. Allow 15 minutes for Corium Z190 to "skin" , i.e. display surface-only curing.
4. Correctly position parts and tighten fitting, taking care not to overtighten and squeeze out Corium Z190.
5. After applying leave a small amount of Corium Z190 protruding from applicator tip to act as a plug.
6. Clean hands with soap and water.

CURING:

Skin, or partial surface cure takes place within 15 minutes, at which time final reassembly should be concluded. Full curing occurs in 24 hours and optimum product strength is attained in 7 days. (All intervals are approximate as ambient temperature, relative humidity and air circulation will affect the curing periods).

PRECAUTIONS:

A vinegar-like odor will be detected on applying Corium Z190 and during product curing. Any body part coming into contact with Corium Z190 should be washed or slight skin irritation may occur.

Corium Z190 is not recommended for use on intake/exhaust manifolds, as head gaskets or as carburetor base gaskets. Do not use where Corium Z190 will be immersed continuously in gasoline.

MAGNA INDUSTRIAL CO. LIMITED

Total Quality Maintenance

1801, Guardian House, 32 Oi Kwan Road, Wanchai, Hong Kong Tel: (852) 2577 5187 Fax: (852) 2577 3190
E-Mail: magna@magnagroup.com Web Site: www.magnagroup.com

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MATERIAL SAFETY DATA SHEET

DATE 01 Aug 2014

SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name/Code CORIUM Z190

Company Identification

Omega Manufacturing Division,
Magna Industrial Co. Limited,
1801, Guardian House,
32 Oi Kwan Road,
Wanchai, Hong Kong.

Distributor

Alshawi Trading,
Block 351, Road 51, Bldg 20, Manama - Bahrain.
www.alshawitrading.com
info@alshawitrading.com
P.O.Box 33526

Telephone (852) 25775187
Fax (852) 25773190

Telephone (973) 1755 0019
Fax (973) 1755 5108

SECTION 2 - HAZARDS IDENTIFICATION

Flammable product.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

| <u>Ingredients</u> | <u>CAS Number</u> | <u>Wt.%</u> | <u>Classification</u> |
|--|-------------------|-------------|-----------------------|
| Vinyltris(methylethylketoximino)silane | 2224-33-1 | 5-15% | Xi; R 38-41-43 |
| Propane | 74-98-6 | <5% | F+;R12 |
| Butane | 106-97-8 | <5% | F+;R12 |
| 2-butanone oxime | 96-29-7 | <5% | Xn, Xi; R 21-40-41-43 |

SECTION 4 - FIRST-AID MEASURES

Eye Contact: Flush with plenty of water for at least 15 minutes. Seek immediate medical attention.

Skin Contact: Wash thoroughly with soap and water. Obtain medical attention in case of skin irritation or other cause for concern.

Inhalation: Move patient to open air.

Ingestion: Do not induce vomiting. Seek immediate medical attention.

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SECTION 5 - FIRE-FIGHTING MEASURES

Extinguishing Media: Dry chemical, waterfog, foam, sand and carbon dioxide.

Special Protective Equipment for Fire Fighters: Self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: At elevated temperature (over 50C) cans may burst, vent or rupture.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Spillage: Avoid breathing vapours. Ventilate area. Remove all sources of ignition. Clean up area with absorbent material and place in closed containers for disposal in accordance with local and national regulations.

SECTION 7 - HANDLING AND STORAGE

Do not incinerate containers. Store in place where temperature may not exceed 50°C. Do not stick pin, nail or any other sharp object into opening on top of can. Do not spray in eyes. Do not take internally.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

ACGIH TLV

| | |
|---------|----------|
| Propane | 1000 ppm |
| Butane | 1000 ppm |

Eye Protection: Safety goggles and full-face shield

Hand Protection: Rubber or plastic oil resistant gloves.

Ventilation: Use under well ventilated conditions.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: clear paste

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Odour: Acid odour
pH: N.A.
Specific Gravity: 1.04
Vapour Pressure: N.A.
Boiling Point: Propellant below -18°C
Melting Point: N.A.
Flash Point: Propellant below -7°C
Flammability: Flammable
Evaporation Rate: >1 (Ether = 1), propellant only
Solubility in Water: Hydrolized

SECTION 10 - STABILITY AND REACTIVITY

Stable

Materials to Avoid: Strong oxidizing agents, hydrogen peroxide, chromic acid, bromine.

Toxic compounds may form on thermal decomposition. Hazardous combustion products: Carbon dioxide, carbon monoxide, SiO₂.

SECTION 11 - TOXICOLOGICAL INFORMATION

There is no lethal dose information available.

Inhalation: Inhalation of vapours can cause irritation of the respiratory tract. Do not breathe spray or vapours.

Skin: May cause irritation, drying and cracking.

Eyes: Cause irritation.

Ingestion: Not a likely route of exposure. If swallowed, may cause irritation in mouth and stomach, thirst, nausea, vomiting, diarrhoea, with possible collapse if large amounts ingested.

Aspiration of material upon vomiting may cause chemical pneumonitis.

SECTION 12 - ECOLOGICAL INFORMATION

No ecological information is available at present.

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SECTION 13 - DISPOSAL CONSIDERATIONS

Comply with all local and national regulations regarding disposal.

SECTION 14 - TRANSPORT INFORMATION

Proper Shipping Name : AEROSOLS, FLAMMABLE (FLAMMABLE GAS).

UN Number: 1950

IATA Class: 2.1, Packing Group: -

IMDG Class: 2, Packing Group: -

SECTION 15 - REGULATORY INFORMATION

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SECTION 16 - OTHER INFORMATION

R-phrases: R12 - Extremely flammable.
R21 - Harmful if contact with skin.
R38 - Irritating to skin.
R40 - Limited evidence of a carcinogenic effect.
R41 - Risk of serious damage to eyes.
R43 - May cause sensitisation by skin contact.

S-phrases: S2 - Keep out of reach of children.
S9 - Keep container in a well ventilated place.
S16 - Keep away from sources of ignition - No smoking.
S23 - Do not breathe gas.
S24 - Avoid contact with the skin.
S38 - In case of insufficient ventilation, wear suitable respiratory equipment.

Remarks: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind, express or implied, and we assume no responsibility for any loss, damage, or expense, direct or consequential, arising out of their use.