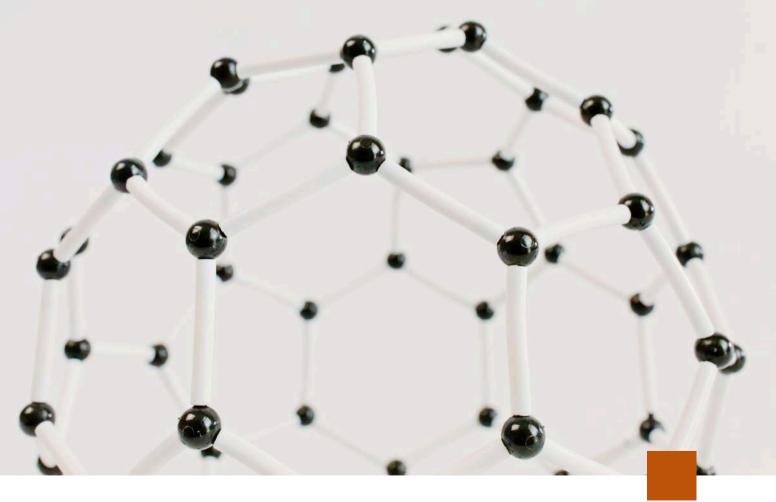


HARDAI ARMND ENGINEERING SOLUTIONS

DESIGN IN INDIA



# Mono-coat



https://hardaiarmnd.com https://molykul.com







## We are 1st in India

With our premium MoS2 Mono Layer Coating Dry lubrication products & Services





## **Mono-Coat Components**

Molybdenum Disulfide micro coating for dry lubrications (Service)



MonoCoat Spin Description MoS2 coated steel balls makes the

spinning durable and heat free.

Bearings, Ball Screw, Valve seat, LM guide, etc



MonoCoat LMG Description MoS2 coating reduces risk of breakdown and ensurance long

term precision.

LM guide block, Ball screw Nut, roller Scres, etc



MOLYKUI

MonoCoat BHP

#### Description

MoS2 coating plays vital role in improving durability in BHP of Engine.

Piston rings, Piston pins, Piston skirt, Fasteners, rod, etc



#### MonoCoat MAKE

#### Description

MoS2 ensurse the durable fatigue cycle of the CNC machines and manufacturing machine parts

#### Tool Collets, Nuts, ATC gripper, fasterners, tools, etc



#### MonoCoat BN

#### Description

MoS2 coating on fasteners ensures the locking of fasteners against the thermal load loosening.

#### Nuts, bolts, lock nuts, key ways, washers & fasteners



#### MonoCoat CUT

#### Description

MoS2 coating is highly efficient to improve tool life and ensures long term precision. [Under R&D]

Milling tools, drilling tools and other cutting tools



#### MonoCoat AUX

#### Description

MoS2 coating improves tribological aspects where compression and tensions are cyclic.

Circlips, spacers, springs, pins, rings, waved washer, etc



#### MonoCoat Hydro

#### Description

MoS2 coating is the new shield for pumps and compressors against wear, corrosion and dropping life.

#### Swash plates, pumps and compressor components



#### MonoCoat XXX

#### Description

Hardai ARMND welcome to all customization of MoS2 coating on different components

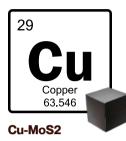
#### **Customization**





## Molykul Mono-Coat

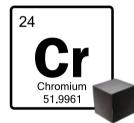
Doping Nanomaterials customizations with MoS2 by Hardai ARMND



#### **Applications**

Manufacturing, Automotives, Vacuum, turbines, bearings, rollers

#### Customation available

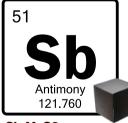


Cr-MoS2

#### Applications

**Biomedical**, Heathcare equipments, Aerospace, Manufacturing

#### Customation available



Sb-MoS2

#### **Applications**

Heavy Duty, cyclic lload, Micro Movements, manufacturing

Customation available



#### **Applications** Electronics, switches, connectors, sensors, thermostat. etc.

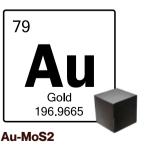
#### Customation available



#### Applications

**Biomedical**, Healthcare equipments, Electronics, Automotives

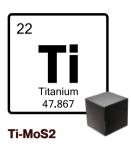
#### Customation available



#### Applications Electro-Mechanical

actuators, Aerospace

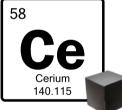
Customation available



#### **Applications**

Automotives, Aerospace, Manufacturing, High speed bearings

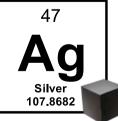
#### Customation available



#### Ce-MoS2

Applications Aerospace, Pollution control, High speed bearings.

#### Customation available

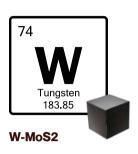


#### Aq-MoS2

#### Applications Aerospace, satallite,

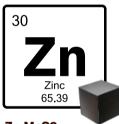
Bearings, gears.

#### Customation available



#### **Applications** Engine, Mold and dies, cutting tools, Chain & Pulley, gears, bearings.

Customation available



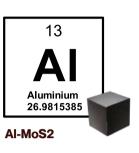
Gear box, Heavy Duty, Engines, Brakes, Cutting tools. electrical actuators

#### Customation available



#### Applications Aerospace, automotives. Manufacturing

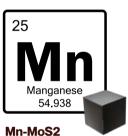
#### Customation available



#### **Applications**

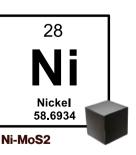
Aerospace, Defense, Biomedical, Automotives, Environment

#### Customation available



Applications Jet Engines, High Temperature Applications

#### Customation available



#### Applications

Thermal Insulations, pumps & compressors, automotives. Aerospace

Customation available











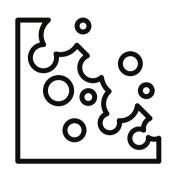
### Molykul properties Core properties of MolyKul Mono-Coat

## 

#### Wide Temperature Range

#### Description

MoS2 Nano material with high-temperature capacity exhibits exceptional heat resistance, maintaining its lubricating properties even under extreme temperatures.



#### **Anti-Corrosion**

#### Description

MoS2 Nano material as an anti-contaminant demonstrates impressive corrosion resistance, safeguarding surfaces against degradation even in harsh environments.



**Eco-Friendly** 



**Highly durable** 

#### Description

MoS2 Nano material is environmentally friendly, as it is free from harmful chemicals and compounds. Its use reduces the need for traditional lubricants.

#### Description

MoS2 Nano material prolongs the lifespan of machinery and components by reducing friction and wear. Its durable nature ensures long-lasting protection against mechanical stress.



## **MolyKul Specs**

Technical Specifications of MolyKul Mono-Coat

#### MolyKul Mono-Coat, a MoS2-based coating from Hardai ARMND, enhances rotating and linear motion parts by:

- \* Reducing friction and wear through its low-friction interface
- \* Enhancing efficiency by minimizing metal-to-metal contact
- \* Providing lubrication and corrosion resistance
- \* Extending component life and reducing maintenance costs
- \* Offering versatility for high-load, high-speed, and harsh environments
- \* Improving performance in bearings, LM guides, pumps, and other applications

| Density of MoS2                | 4.9 g/cc           |
|--------------------------------|--------------------|
| Melting point                  | 2300°C             |
| Min. Particle size             | 10 nano meter      |
| Storage requirement            | Dust free packing  |
| Human consumption              | Hazardous          |
|                                |                    |
| Min. Coating Thickness         | 1 micro meter      |
| Coating Coloue                 | Blackish           |
| Endurance life of<br>component | 40% +              |
| Dopping Components             | As per application |
|                                |                    |







#### Contact

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