

## **SYNTH VALVE GREASE MP-601 (Multipurpose Synthetic Valve Grease)**

*(Multipurpose synthetic valve grease for all kinds of Wellhead, Xmas tree valves, gate & plug valves, chemically resistance, very good metal surface adhesion properties even when subjected to very high temperature & high pressure upto 15000 psi)*



### **DESCRIPTION**

**SYNTH VALVE GREASE MP-601** is a specially formulated multipurpose synthetic grease in valve lubrications for all kinds of gate and plug valves used across Petroleum Industries. The grease is made from fully specialized synthetic base oil for extraordinary chemical resistant to all kinds of Petroleum Industries in an inorganic thickener incorporated with special extreme pressure additives creates a passive film on friction surfaces before friction occurs with antioxidants, anti-corrosion, rust inhibitors. The grease has very good surface property adhesion properties for all metals surfaces even when subjected to very high pressure upto 15000 psi.

### **APPLICATIONS**

**SYNTH VALVE GREASE MP-601** is used in all kinds of Wellhead, Xmas tree valves, gate and plug valves used in crude oil, natural gas production, sour crude, gas, acids, sand slurries and difficult condensates pipe line applications.

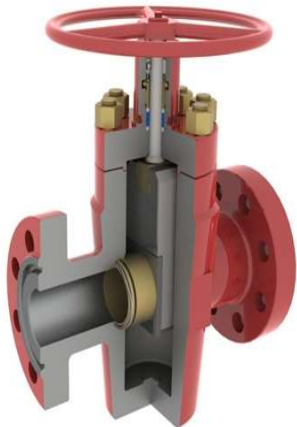
### **PERFORMANCE BENEFITS**

- Excellent highly chemical resistance, H<sub>2</sub>S / HCL corrosion resistance, hydrocarbon resistance, water & steam resistance to changes in consistency at high temperatures. It will not harden
- Excellent adhesive properties to remain in the seal plug valve cavity under high temperature and pressure upto 15000 psi conditions.
- Maintains viscosity at high temperatures and does not harden, high film strength,
- Good low temperature pumpability & Can greatly extend re-greasing intervals.
- Excellent extreme pressure & wear resistance.
- Low oil separation even at elevated temperatures.
- Reduced maintenance costs due to possible lifetime lubrication and improving valve reliability.
- Protection against rust and corrosion, very good oxidation resistance
- Multi-purpose grease or all kinds of gate and plug valves used across Petroleum Industries.
- Wide range of operation temperature -40°C to 250°C (-22°F to 482°F).

**Chemically Resistance:** Extraordinary resistant to Crude oil, Natural gas, Diesel & Petrol fuel, H<sub>2</sub>S, CO<sub>2</sub>, Salt water/Brines, Steam & Condensates, 28% frac acid (HCL), Produced sand & Drilling muds,

## SPECIFICATIONS

Properties	Test method	Typical valve
Consistency NLGI	-	1 & 2
Appearance & Structure	Visual	Smooth Homogeneous, Tacky Smooth & Adhesive
Colour	Visual	Blackish/Grey
Thickener	-	Inorganic
Additives	-	Anti-corrosion, Anti-Oxidant, Anti-Rust, Special EP, Friction Modifiers, H <sub>2</sub> s inhibitors etc
Base Oil Type	-	Specialized chemical resistant synthetic polymer base oil for all kinds of Petroleum Industries
Solids Content	-	Molybdenum disulfide
Drop Point	ASTM D2265 / IP 396	Non-Melting
Worked Penetration @25°C	ASTM D217 / IP 50	275-305
4-Ball Weld Load in kgs	ASTM D2596 / IP 239	+800
Four Ball Wear Scar	ASTM D 2266	0.405
Copper Strip corrosion @100°C for 24 hrs	ASTM D4048	1a
EMCOR rust protection test	IP 220	0-0
Oil Separation % loss 42 hours	IP 121	0.12
Low Temperature Performance	-	-28°C
Resistance (24 hrs room temperature) Crude oil, Petrol, Natural gas, Hexane, H <sub>2</sub> S, CO <sub>2</sub> , HCL 28% frac acid, salt water, brines, steam, produced sand & drilling muds	CTM	Pass, Fully Resistance (No Leakage)
Operating Range °C	-	-40°C to 250°C (-40°F to 482°F)



## Solution:

**SYNTH VALVE GREASE MP-601** synthetic valve sealant with a special thickener and specialized synthetic chemical resistant polymer base oil combination for all kinds of petroleum industries.

- Superb resistance to hydrocarbons, H<sub>2</sub>S, CO<sub>2</sub> & HCL.
- Excellent sealing ability.
- Wide range of operation temperature -40°C to 250°C (-22°F to 482°F).

## Testing Plan

- All valves are cleaned inside out to remove the grease sealant left over.
- Water is injected inside the gate valve assembly (Simulation of actual scenario at off-shore facility) at a specific rate.
- Injection of **SYNTH VALVE GREASE MP-601** sealant and then re-running the pressure test.
- Recording of data using digital pressure gauge.

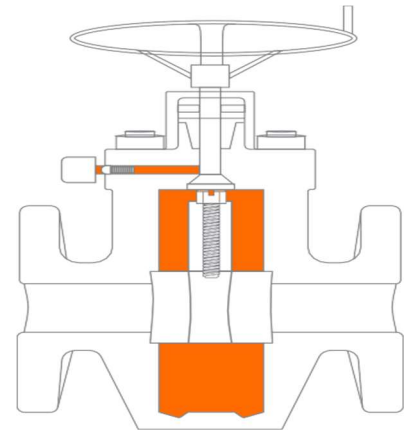
## Hydrocarbon Resistance Test



SYNTH VALVE GREASE MP-601



Competitor Product



SYNTH VALVE GREASE MP-601  
lube points

## SYNTH VALVE GREASE MP-601 PERFORMANCE

Property	Description	Before Sealant	After Sealant
McEvoy 2-1/16	Seal	Valve is passing from 0 psi to test pressure of 4400 psi in 7 mins.	Pressure maintained to 4400 psi for 15 mins.
FMC 3-1/8	Seal	Valve is passing from 0 psi to test pressure of 3700 psi in 5 mins.	Pressure maintained to 3700 psi for 15 mins.
Cameron FL 2-1/16	Seal	Valve is passing from 0 psi to test pressure of 3400 psi in 10 mins.	Pressure maintained to 3400 psi for 15 mins.

## RESULTS

- **SYNTH VALVE GREASE MP-601** successfully sealed 3 different OEM valves.
- It was able to seal the valves successfully within the time frame during the trial period.

**POWERMAXX LUBE INDIA**

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