

OIL & GAS

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TECHNICAL DATA SHEET

Quality Standards:
ISO 9001:2015
ISO 14001: 2015
Issue Date—February 2017
Revision—00

VALVE SEALANT 701

Heavy duty valve sealant
NLGI 2

Introduction

API 6A gate valves are designed to achieve a metal to metal seal between the gate and seat. In some cases the seal surfaces can be damaged, either because of insufficient preventative maintenance, poor choice of service lubricant, arduous operating conditions or a combination of all.

In such cases Valve Sealant 701 may be injected into the valve cavity, to assist in achieving a seal across the gate or seat surfaces. The ability of any sealant to provide a seal which will sustain full wellhead pressure, depends upon its performance and the specific condition of the valve components. Valve Sealant 701 is field proven as highly effective.

Description

Valve sealant 701 is specially formulated heavy duty valve sealant. In full scale valve testing, it has been proven to seal a severely leaking valve. Valve Sealant 701 is fully resistant to all types of produced hydrocarbons and also to high levels of H₂S and CO₂.

Valve Sealant 701's physical texture and high metal adhesion promotes extended cavity retention. Valve Sealant 701 also has enhanced lubricating properties to protect the sealing surfaces during further functioning of the valve under high differential pressures.

Valve Sealant 701 is fully compatible with our Valve Lubricant 601 and Valve Sealant 701 range.

Applications

Valve Sealant 701 should be used in gate valves with moderate to severe leaks where the use of Valve Lubricant 601 has not been successful in assisting the valve to hold pressure. Valve Lubricant 701 may be injected into plug and ball valves in an attempt to assist with emergency sealing and it is also able to be pumped by high pressure pumps.

Testing

Valve Sealant 701 has been tested in an API 6A gate valve with a severely damaged seat component deliberately cut to a depth of 1.5mm. Valve Sealant 701 was able to hold 5,000 psi which is the pressure limit of a valve.

Note— A leading valve sealant was tested alongside Valve Sealant 701, in the same test the valve sealant would not even assist the valve to pressure up. A test report is available on request.

Typical Characteristics

Appearance	Visual	Adhesive
Colour	Visual	Black/Grey
Thickener		Inorganic (non-soap)
Temperature Range		0°F to 350°F
Drop Point	IP 396	Non-melting
4-Ball Weld Load	IP 239	>620kg

Base Oil Characteristics

Type		Synthetic
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Important Note

The injection of a sealant is a temporary measure. The valve is leaking due to physical damage to the sealing surfaces, the valve or its components should be changed out at the earliest opportunity. The sealant may be employed to assist in regaining integrity so well intervention operations can be carried out in a cost-effective manner.

Valve Sealant 701 can be pumped by high pressure pumps—please contact RS Clare for pump specification advice.

*It is the sole decision of the operator if a sealant is employed to assist to restore or maintain the integrity of a valve as a well barrier. *Prior to injecting 701, the operator should identify the exact make, model and pressure rating of the gate valve, and confirm the arrangement of the sealant injection fitting(s) in the valve's bonnet. If a buried check valve is present please utilise 701-L.*

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SECONDARY, “BURIED” INJECTION CHECK VALVE FITTING

701 has been observed to block up in this secondary check fitting

.390 Ø M. SPINNING
SPIN

Prior to injecting 701, the operator should identify the exact make, model and pressure rating of the gate valve, and confirm the arrangement of the sealant injection fitting (s) in the valves bonnet. If there is any doubt, it is recommended that test pumping 701 through a spare fitting, attached to the pump delivery hose end should be conducted before injection into the valve.

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