

OIL & GAS

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TECHNICAL DATA SHEET

Quality Standards:
ISO 9001:2008
ISO 14001: 2004

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VALVE SEALANT 701

Heavy duty valve sealant.

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.

It is important to note that the injection of a sealant is a temporary measure. The valve is passing 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.

Benefits

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.

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.

Application

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. Ask RS Clare for pump advice.

Typical Characteristics

Thickener	Inorganic (non-soap)
Base Fluid Type	Synthetic oil
Texture	Adhesive
NLGI Grade	No. 2
Drop Point	Non-melting
Temperature Range	0°F to 350°F
4-Ball EP Test (IP 239)	Weld load >620kg

*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*