

Chemlok® 6451

Technical Data Sheet

Chemlok® 6451 is a high-temperature formulation used to affix NBR and HNBR compounds to metal. It can be applied as either a covercoat or one-coat surface treatment.

When used as a two-coat system, Chemlok 6451, in conjunction with Chemlok 207 as a primer, forms systems that can withstand many adverse environmental conditions found in downhole applications, as well as display excellent tear strength.

Features and Benefits:

Versatile – affixes a variety of NBR and HNBR compounds to a variety of metal substrates when used in combination with Chemlok 207; can be used as a one-coat surface treatment.

Chemically Resistant – resists a variety of fluids, including oils and fuels, and various aqueous environments.

Environmentally Resistant – provides excellent resistance to water, humidity, salt spray and high temperatures.

Elastomers:

- Nitrile (NBR)
- Hydrogenated Nitrile (HNBR)

Application:

Surface Preparation – Thoroughly clean metal surfaces prior to application. Remove protective oils, cutting oils and greases by solvent degreasing or alkaline cleaning. Remove rust, scale or oxide coatings by suitable chemical or mechanical cleaning methods.

If applicable, allow primer to thoroughly dry before applying Chemlok 6451.

For further detailed information on surface preparation of specific substrates, refer to Chemlok application guide.

Mixing – Thoroughly stir Chemlok 6451 before use and agitate sufficiently during use to keep dispersed solids uniformly suspended.

Dilution of Chemlok 6451 is not required, nor recommended; however, if deemed necessary, MEK or xylene can be used as a diluent but should not exceed 10% by volume. Slowly add diluent solvent to the container of Chemlok 6451 while under agitation. Over dilution or rapid addition of diluent solvent can cause “shock” to occur. Solvent “shock” can result in gelling, particulate formation, or phase separation of Chemlok 6451.

Applying – Apply Chemlok 6451 by brush, spray, dip or flow methods.

Regardless of application method, the dry film thickness of Chemlok 6451 should be 15.2-20.3 micron (0.6-0.8 mil).

Drying/Curing – Thoroughly dry coated parts prior to processing assemblies. Chemlok 6451 cures during the rubber vulcanization process.

Typical Properties*	
Appearance	Green-black Liquid
Viscosity, cps @ 25°C (77°F) Brookfield LVT Spindle 1, 60 rpm	0 - 100
Density kg/m ³ (lb/gal)	916.5 - 964.6 (7.65 - 8.05)
Solids Content by Weight, %	23 - 27
Flash Point (Seta), °C (°F)	0 (32)
Solvents	Methyl Ethyl Ketone (MEK), Xylene

*Data is typical and not to be used for specification purposes.

Cleanup – Use solvents such as xylene and MEK to remove Chemlok 6451 before heat is applied. Once cured, removal by solvent is not possible.

Shelf Life/Storage:

Shelf life is six months from date of shipment when stored by the recipient at 21-27°C (70-80°F) in original, unopened container.

Cautionary Information:

Before using this or any Parker Lord product, refer to the Safety Data Sheet (SDS) and label for safe use and handling instructions.

For industrial/commercial use only. Required to use under organized emissions. Must be applied by trained personnel only. Not to be used in household applications. Not for consumer use.

Values stated in this document represent typical values as not all tests are run on each lot of material produced. For formalized product specifications for specific product end uses, contact the Customer Support Center.

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Chemlok® 6451

技术说明书

Chemlok® 6451 作为一种高温配方表面处理剂,可以帮助和促进未硫化的橡胶附着至金属基材上。它可作为单涂也可作为面涂使用。

当Chemlok 6451与Chemlok 207底涂配合使用可以形成双涂层体系,能够在井下应用中耐受各种逆境,同时也可以提供优异的抗撕裂强度。

特征和优点:

用途广泛 – 与 Chemlok 207 底涂配合使用时,可帮助和促进各种 NBR 和 HNBR 化合物附着至各种基材上。可作为单涂表面处理剂使用。

耐化学腐蚀 – 可耐受各种液体(包括油和燃料)以及各种潮湿环境。

耐环境性强 – 对水、湿气、盐雾和高温具有出色的耐受能力。

弹性体:

- 丁腈橡胶 (NBR)
- 氢化丁腈橡胶 (HNBR)

使用方法:

表面处理 – 在涂敷前,应彻底清洗金属表面。通过溶剂脱脂或碱洗的方式,去除保护油、切削油和油脂。通过适当的化学或机械清理方式,去除锈、腐蚀层或氧化层。

如果适用,在涂敷Chemlok 6451之前确保底涂彻底干燥。

对于特定基材的表面处理的详细信息请参阅Chemlok/Chemosil应用指南。

混合 – 使用本品前,应彻底搅拌均匀。使用时,充分搅拌以保持悬浮固体均匀分散。

无需稀释,也不推荐;但是,如果需要,可使用丁酮或二甲苯作为稀释剂,但是稀释体积比不应该超过10%。在搅拌的情况下缓慢添加稀释剂至Chemlok 6451容器中。过度稀释或快速添加稀释剂可导致整个体系不稳定,最终导致Chemlok 6451凝胶,形成颗粒或相分层。

涂敷 – 可采用刷涂、喷涂、浸涂或浇筑的方式。

无论采用何种涂敷方式,Chemlok 6451的干膜厚度应为15.2-20.3微米(0.6-0.8密尔)。

干燥/固化 – 在进行流水线装配之前应彻底干燥已涂敷的工件。Chemlok 6451在橡胶固化的过程中固化。

清理 – 使用二甲苯和丁酮(MEK)等溶剂清除多余的未经硫化的Chemlok 6451。一旦固化则无法使用溶剂清除。

保质期/储藏要求:

自发货之日起,保质期为六个月,但是收货人必须使用出厂未开封的原装容器,且保存在21-27°C (70-80°F) 环境下。

典型特性*

外观	墨绿色液体
粘度, cps @ 25°C (77°F) Brookfield粘度计 1号转子, 转速60 rpm	0 - 100
密度 kg/m ³ (lb/gal)	916.5 - 964.6 (7.65 - 8.05)
固体含量, %	23 - 27
闪点 (Seta), °C (°F)	0 (32)
溶剂	丁酮 (MEK), 二甲苯

*典型数据不可作为产品标准之用。

警示信息：

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