



## Product Data Sheet

### **TIMKEN® CONSTRUCTION AND OFF-HIGHWAY GREASE** Lubricating Grease

#### **Part Numbers**

GR219C	400 g (14 oz) cartridge
GR219F	1 kg (2.2 lb) tub
GR219P	16 kg (35.3 lb) pail
GR219K	55 kg (121.3 lb) keg
GR219D	180 kg (400 lb) drum

#### **Product Description and Intended Use**

TIMKEN Construction and Off-Highway Grease is an NLGI No. 2 high performance lubricating grease used when resistance to water washout, heavy loading, and broad operating temperatures are mandatory. The formulation of this product provides protection against bearing wear due to shock loading and outstanding corrosion and water resistance including salt spray. TIMKEN Construction and Off-Highway Grease also has exceptional mechanical stability even in the presence of water. It will provide extended protection in problem areas involving wet and dirty environments such as mining, construction, and off-road applications. It contains no heavy metals or other environmentally undesirable additives.

#### **Product Application**

TIMKEN Construction and Off-Highway Grease can be applied from ambient temperatures of -10° F to +400° F (-23° C to +204° C) depending on lubrication system design and method of application. TIMKEN Construction and Off-Highway Grease has an operating range of -40° F to +400° F (-40° C to +204° C) once in the application (depending on frequency of application). Follow equipment manufacturer's recommendations concerning lubrication frequencies.

#### **Compatibility of Grease**

TIMKEN Construction and Off-Highway Grease is generally compatible with calcium, calcium 12-OH stearate, calcium complex, calcium sulfonate, lithium, lithium complex and polyurea thickened greases. Timken recommends that all grease be removed from the application prior to changing greases. Then the lubrication interval is reduced by half for the first lubrication cycle before resuming the normal lubrication interval.

#### **Handling and Storage**

Store in a dry area away from heat and open flame. See Material Safety Data Sheet for more information.

#### **Shipping and Disposal Information**

Follow governmental regulations pertaining to the shipping and disposal of this product. Do not reuse container. See Material Safety Data Sheet for more information.

# **TIMKEN® CONSTRUCTION AND OFF-HIGHWAY GREASE**

## **Product Specifications – Typical**

Color	Gray
NLGI Grade	2
Penetration, Unworked ASTM D 217	265-295
Penetration, Worked 60 Strokes, ASTM D 217	265-295
Penetration Change, 100000 Strokes, ASTM D 217	+/- 5 %
Molybdenum Disulfide, %	5
Wheel Bearing, ASTM D 1263, Modified 325°F (163° C)	0.4 Grams
Dropping Point, ASTM D 2265	572° F (300° C)
Oxidation Stability, ASTM D 942, 100 hours at 99° C	5 psi (35 kPa)
Four-Ball Wear, ASTM D 2266, 40 kg, 1200 RPM, 75°C, Scar mm	0.45 Max.
Four-Ball EP, Weld Point, ASTM D 2596, kgf	620
Timken OK Load, ASTM D 2509, Pounds	65
Copper Strip Corrosion, ASTM D 4048	1a
Corrosion Preventive Properties, ASTM D 1743	Pass
Oil Separation, ASTM D 1742	0.2 %
Water Washout, ASTM D 1264, 175°F (79° C), % Loss	2.75
Salt Fog Test, B-117, hours	+2,500
Base Fluid Properties:	
Viscosity @ 100° C, ASTM D 445, Centistokes	30 – 34
Viscosity @ 40° C, ASTM D 445, Centistokes	430 – 490
Viscosity Index	95
Pour Point, ASTM D 97	- 12° C
Flash Point, ASTM D 92	255° C

Date: November 18, 2008

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