



## Product Data Sheet

### **TIMKEN® ULTRA-HIGH SPEED SPINDLE GREASE**

Lubricating Grease

#### **Part Numbers**

GR233C	400 g (14 oz) cartridge
GR233SYR	30 ml syringe

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

TIMKEN Ultra-High Speed Spindle Grease utilizes the latest in polyurea thickener, synthetic fluid and additive technology. It is specifically designed for high-speed to ultra high-speed (> 2 million Speed Factor,  $n \times dm$ ) precision ball bearing lubrication in applications such as drills, grinders, lathes, milling machines and other long life applications. TIMKEN Ultra-High Speed Spindle Grease does not contain extreme pressure additives, but is inhibited against rust and oxidation.

#### **Product Application**

TIMKEN Ultra-High Speed Spindle Grease can be applied from ambient temperatures of - 40° F to + 300° F (- 40° C to + 149° C) depending on lubrication system design and method of application. TIMKEN Ultra-High Speed Spindle Grease has an operating range of - 65° F to + 300° F (- 54° C to + 149° C) once in the application. Follow equipment manufacturer's recommendations concerning lubrication frequencies.

#### **Compatibility of Grease**

TIMKEN Ultra-High Speed Spindle Grease is generally compatible with calcium sulfonate, polyurea, lithium soap, and lithium complex 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® ULTRA-HIGH SPEED SPINDLE GREASE**

## **Product Specifications – Typical**

Color	Light Yellow/Amber
NLGI Grade	2
Thickener Type	Polyurea
Penetration, Unworked, ASTM D 217	220 Min.
Penetration, Worked 60 Strokes, ASTM D 217	265-295
Penetration Change, 100000 Strokes, ASTM D 217	310-360
Wheel Bearing Leakage, ASTM D 1263, Max.	5 Grams
Dropping Point, ASTM D 2265	> 250° C
Oxidation Stability, ASTM D 942, 100 hours at 99° C	1
Copper Strip Corrosion, ASTM D 4048	1a
Corrosion Preventive Properties, ASTM D 1743	Pass
EMCOR Corrosion, ASTM D 6138, Distilled Water	0,0
Oil Separation, ASTM D 1742	1.5
Water Washout, ASTM D 1264, 175° F (79° C), % Loss	5
Bearing Life, ASTM D 3336, 300° F, Hours	2,000+
Base Fluid Properties:	
Viscosity @ 100° C, ASTM D 445, Centistokes	4-6
Viscosity @ 40° C, ASTM D 445, Centistokes	20-24
Viscosity Index	130
Flash Point, ASTM D 92, Min.	204° C (400° F)
Pour Point, ASTM D 97	- 65° C (- 85° F)

Date: November 18, 2008

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