TRC> G O Tomorrow' 5 Grease *Coday*



In today's world of fast food, fast cars, and fast technology, demands are greater than ever for high performance and long lasting products in every industry. The Lubricants industry is no exception. As a leader in the Specialty Lubricants Industry, Texas Refinery Corp developed a one of a kind grease that has far surpassed other greases in the industry.

Named the "1999 Product of the Year" by Plant Engineering, TRC's Paragon 3000 was introduced as the grease for the new millennium. It has proven to be the ultimate in equipment protection and cost efficiency - - exactly what is needed in this generation. There truly is no other grease like it in quality or performance. So unique, Paragon 3000 is only available from Texas Refinery Corp.



PARAGON[®] 3000 Offers Outstanding Extreme Pressure Protection

PARAGON[®] 3000 offers tremendous anti-wear protection. PARAGON[®] 3000 passes a full 100 lb. Timken OK test. Equipment subjected to heavy load and shock loading function at peak efficiency. Unlike many High Timken Value greases, this product offers superior protection throughout the entire range of load. Often special greases manufactured to offer protection under incredibly high loads do not protect from wear when loads are more normal. PARAGON[®] 3000 offers exceptional anti-wear protection - - regardless of the

load - - including a 100 lb. Timken OK load.

PARAGON® 3000 Is A Very Stable Grease With A Long Working Life

PARAGON® 3000 is an extremely stable grease. This is an indication of its long life in actual working conditions. Many greases change significantly in consistency when in actual operation, often thinning considerably or thickening. PARAGON® 3000 shows very little change in its worked penetration from the 60 round-trip strokes compared to the 10,000 round-trip strokes in a standard grease worker. Even more significant, PARAGON® 3000 changes little even in the 100,000 double stroke test. After 100,000 strokes PARAGON® 3000 changes from a penetration of 280 to 274 in its consistency. Most greases in the 100,000 double stroke test change considerably in their consistency. Some of them become too soft, allowing leakage away from the area where the grease is needed. Other greases become too hard, indicating they may not feed adequately into areas to be lubricated. PARAGON® 3000 is extraordinarily constant and stable, thus providing the ultimate in protection.

PARAGON[®] 3000 Is Highly Water Resistant

Texas Refinery Corp's PARAGON[®] 3000 is resistant to moisture. This grease can be used in areas where ordinary greases would simply be washed away. PARAGON[®] 3000 resists being washed off by water and, in fact, displaces water on metal surfaces, keeping those surfaces free from rusting, pitting and corrosion. Extreme pressure protection (100 lb. Timken OK Load), is retained even in the presence of 20% water. This is remarkable for any lubricant - - but not for PARAGON[®]



3000. This extreme water resistance provides the answer to many current industrial equipment problems. One example where PARAGON[®] 3000 could be used is in paper mills where heat, water and extreme conditions are present. The more conditions are extreme, the greater PARAGON[®] 3000 performs.

PARAGON® 3000 Handles Impact And Prevents Wear

PARAGON[®] 3000 contains specially developed high impact resistant supplements. These supplements enable PARAGON[®] 3000 to resist severe and continuous impact. This characteristic enables this grease to prevent wear, ensure longer service life and provide a new dimension in down-time protection. PARAGON[®] 3000 resists squeezing out and thinning under severe loads, thereby preventing metal to metal contact.

The adhesive and cohesive characteristics make this grease suited for many demanding jobs. The adhesive characteristics also help develop a dust shield to prevent contaminates from getting into bearings.

PARAGON[®] 3000 Protects Against Hydrogen Sulfide

TRC now incorporates an H_2S (Hydrogen Sulfide) Scavenger in PARAGON[®] 3000 for additional protection in applications where this corrosive gas is found. Hydrogen sulfide is often associated with the fracking and drilling industry, mining

operations, sewer gas, swamp gas, water treatment facilities, animal waste, garbage dumps, paper and textile mills, facilities that handle used/waste oil and many other petroleum and industrial areas. Customers working in these tough environments can be assured they have the ultimate protection with Paragon 3000!

PARAGON® 3000 Is A Unique Grease For Many Different Applications

 $\mathsf{PARAGON}^{\circledast}$ 3000 is the only grease made using a unique combination of thickeners and additives.

PARAGON[®] 3000 is ideal for a wide range of applications covering heat, moisture, load, impact and stability questions. It is a true multi-purpose product. Areas of applications would include:

Steel Mills Paper Mills Hot Corrugator Oven Conveyors Mining Farming Trucking Water Treatment Plants Asphalt Plants Kilns Recycling Plants Plastic Extruders Ball Bearings Chains Bushings 5th Wheels Glass Plants Pellet Mills Construction Buses Cement Plants Machine Tools Sleeves Needle Roller Bearings Wheel Bearings Chassis Points Coal Stokers Glass Lehrs Logging Automotive Foundries Thrust Bearings Electric Motors Slides U-Joints Exhaust Fans Anti-Friction Bearings Roller Bearings











PARAGON® 3000 Has A Wide Operating Temperature Range

PARAGON[®] 3000 offers extreme temperature protection. Most greases have dropping points between 290 and 390 degrees F. PARAGON[®] 3000 has a dropping point of 630 degrees F. PARAGON[®] 3000 offers protection at high temperatures when others can not. PARAGON[®] 3000 has an extra margin of safety for those hot spots. This grease will not melt below 630 degrees F.

PARAGON[®] 3000 is a special high temperature grease which does not cake-up in lines or bearings. Naturally, at temperatures above 450 degrees F. to 570 degrees F. you must lubricate more frequently.





SPECIFICATIONS PARAGON 3000

Product Code	108498	108499	108500
NSE Registration Number	100100	159171	128887
Penetration: Worked 60 Stroke Control Range (ASTM D217-52T)	355-385	310-340	265-295
NI GI Consistency	No. 0 Grade	No. 1 Grade	No. 2 Grade
Color	Marine Blue	Marine Blue	Marine Blue
Texture	Stringy	Stringv	Stringv
Dropping Point, °F (ASTM D-2265)	630°F Typical	630°F Typical	630°F Typical
Maximum Recommended Operating Temperature	570°F	570°F	570°F
Combination (ASTM D128-57) % Soap % Filler % Water Stability by Penetration (typical)	5-6 Maximum Trace Trace	6-8 Maximum Trace Trace	10.0 Maximum Trace Trace
after 60 worked strokes (ASTM D217-52T)		325	282
Stability by Penetration (typical) after 10,000 worked strokes (ASTM D217-52T)		320	280
Stability by Penetration (typical) after 100,000 Stroke Working (ASTM D217-52T)		316	274
Extreme Pressure by Timken OK Load Passing At (ASTM D-2509)	80 pounds Minimum	100 pounds Minimum	100 pounds Minimum
Unit Load, PSI	29,000	29,000	29,000
4 Ball EP Test (ASTM D-2596)	315 kg Weld Point	315 kg Weld Point	315 kg Weld Point
4 Ball Wear Test (ASTM D-2266)	.33 mm Scar Diameter	.33 mm Scar Diameter	.33 mm Scar Diameter
Automotive Wheel Bearing by Leakage Tendencies (ASTM D-1263-52T)	Pass No Leakage, No Varnish	Pass No Leakage, No Varnish	Pass No Leakage, No Varnish
Oil Separation (ASTM D-1742)		0.00%	0.00%
Consistency at Various Temperature by Unworked Penetration (ASTM D217-52T) Control Range @ 0°F. @ 77°F. @ 100°F.	285-310 355-385 390-410	240-265 310-340 335-355	190-210 265-295 280-300
Relative Pumpability @ 0°F., Grams	12.0	8.4	2.7
Oxidation of Grease by Bomb Test Drop (ASTM D942)	Less than 1 PSI Pressure drop for 500 hours	Less than 1 PSI pressure drop for 500 hours	Less than 1 PSI pressure drop for 500 hours
Rust Corrosion Test	Pass	Pass	Pass
Pumpability in Hand Operated Grease Gun (ASTM d-1264))	Slow at -20°F	Slow at -15°F	Slow at -5°F
Water Washout @79°C (ASTM D 1264)	0.65%	0.65%	0.65%

Handling Information: For safe handling of the product, read the Safety Data Sheet (SDS).

PARAGON 3000® is a registered trademark of Texas Refinery Corp

NSF Registration No. 128887 Category Code: H2

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