

Dirghayu

Wheel Bearing Grease



Engineering The
Grease Technology

World Class
Greasing Solutions

Sustainability Through **Green Future**



The Superior Eco-Friendly Wheel Bearing Grease

In the realm of automotive engineering, from light vehicles like cars to medium-duty counterparts such as buses, tempo vans, and three-wheeled rickshaws zipping along at medium to high speeds, all the way to heavy-duty workhorses like trucks, containers, trailers, tractors, JCBs, road rollers, and cranes chugging along at a slower pace, the need for wheel bearing greases is paramount. This vital maintenance task helps prevent catastrophic breakdowns caused by bearing failures. Even passenger trains and cargo-carrying bogies within the railway industry rely on specialized wheel bearing greases to ensure smooth operation.

Currently, the industry standard for these greases predominantly comprises petroleum or synthetic-based formulations, often enhanced with additives to adapt to the demands of specific load and speed conditions. The primary requisites for these greases are lubricity and consistency.

However, the landscape is evolving with the introduction of Dirghayu Green Wheel Bearing Greases –a departure from traditional petroleum or synthetic counterparts. These innovative bio-lubricants are celebrated for their exceptional lubricity, high viscosity index, polar nature, impressive temperature resistance, and biodegradability. These exclusive properties inherent to vegetable oil-based Dirghayu Green Wheel Bearing Greases yield superior performance compared to their petroleum and synthetic counterparts. Moreover, Dirghayu Greases employ a non-soap process to form grease, allowing them to withstand the high temperatures generated within bearings and endure high-pressure conditions.

**Very High
Lubricity**

**High
Viscosity
Index**

**Strong
Adhesion
Due To
Polar Nature**

**Temperature
Resistant
upto 300°**

Biodegradable



Dirghayu Wheel Bearing Grease is offered in two distinct types: Standard and Long Life. The Long Life variant, in particular, extends the re-lubrication interval significantly. This feature proves invaluable for applications involving buses, trucks, containers, and other vehicles that operate continuously.

One remarkable aspect of Dirghayu Greases is their high drop point, which can reach a staggering 280°C. Typically, in medium-duty applications, bearing temperatures hover around 160°C. This notable temperature resistance contributes to enhanced durability and reliability. Moreover, Dirghayu Greases boast an impressive lubricity rating of approximately 0.4 mm, surpassing other brands that typically range from 0.5 mm to 0.9 mm. This higher lubricity translates to reduced wear and lower temperature elevation, potentially leading to reduced fuel consumption—a boon for both cost-conscious and environmentally-conscious consumers.

The polar nature of Dirghayu Greases sets them apart from their petroleum and synthetic counterparts, endowing them with excellent adhesion properties. Carefully selected additives further augment their load-bearing capabilities.

In terms of consistency, Dirghayu Greases demonstrate remarkable longevity, even after 100,000 strokes. The difference in consistency between the standard and long-life variants is a mere 18 mm—a testament to their robust formulation. Roll stability consistency is an impressive 15, a key factor in achieving extended service life, particularly for long-life applications.

Furthermore, Dirghayu Greases boast a high viscosity index, far surpassing that of petroleum or synthetic base oils by a factor of two to three. This ensures that the grease retains its viscosity even under extreme operating conditions, maintaining optimal performance over time.



Dirghayu Long Life Wheel Bearing IM-LL-WB-2 CL Greases

Test	Test Method	Unit	<u>IM-LL-WB-2 CL</u>
Appearance	Visual		Smooth
Base Oil			Vogotable Oil
Thickener			Organic Clay
Color			Black
Base Oil Viscosity @ 40°C	ASTM D 445	Cst	220
NLGI GRADE			2
Penetration ,Unworked	ASTM D 217	mm	272
Worked Penetration after 60 Strokes	ASTM D 217	mm	272
Worked Penetration after 100,000 Strokes	ASTM D 217	mm	290(Diff. 18 mm)
Four Ball Wold Load	ASTM D 2596	Kg	280
Four Ball Scar Dia.	ASTM D 2266	Kg	0.46
Drop point	ASTM D 2265	°C	280
Copper Strip corrosion	ASTM D 4048	-	1a
Corrosion Preventive Property	ASTM D 1743	-	1
Oil Leakage Tendency	ASTM D 1263	%	0.76
Water Washout Test	ASTM D 1264	%	1.14
EMCOR	ASTM D 6138		0-0
Oxidation Stability Test	ASTM D 942	Kg/Cm2	0.75
Operating Temp.	-	°C	-20 to 180°C
Roll Stability Consistency	ASTM D 1831	mm	15
Heat Stability	ASTM D 6184	%	1



Dirghayu Wheel Bearing IM-WB-2 CL Greases

Test	Test Method	Unit	<u>IM-WB-2 CL</u>
Appearance	Visual		Smooth
Base Oil			Vegetable Oil
Thickener			Organic Clay
Color			Pale Yellow
Base Oil Viscosity (@ 40°C)	ASTM D 445	Cst	220
NLGI GRADE			2
Penetration ,Unworked	ASTM D 217	mm	265
Worked Penetration after 60 Strokes	ASTM D 217	mm	265
Worked Penetration after 100,000 Strokes	ASTM D 217	mm	295(Diff 30 mm)
Four Ball Weld Load	ASTM D 2596	Kg	280
Four Ball Scar Dia.	ASTM D 2266	Kg	0.47
Drop point	ASTM D 2265	°C	280
Copper Strip corrosion	ASTM D 4048	-	1a
Corrosion Preventive Property	ASTM D 1743	-	1
Oil Leakage Tendency	ASTM D 1263	%	0.86
Water Washout Test	ASTM D 1264	%	1.1
EMCOR	ASTM D 6138		0-0
Oxidation Stability Test	ASTM D 942	Kg/Cm2	0.75
Operating Temp.	-	°C	-20 to 180°C
Roll Stability Consistency	ASTM D 1831	mm	30
Heat Stability	ASTM D 6184	%	2

