

## HOB-E-LUBE LUBRICANT PROPERTIES AND USES

Different models, motors, gears, joints, cables and switches require specific lubricating properties. To preserve, protect and insure the like-new operation of your fine models, you should know where and when to use different lubricants: penetrating, non-conductive, high-temperature, non-staining, close-tolerance,

light load-bearing, anti-drip, heavy-duty and/or waterproof. This listing describes and explains why you need each of these dry-powdered lubricants, oils and greases for your hobby, workshop and household needs. Always keep a full 7-PAK in your toolbox to have the right lube handy.

### DRY POWDERED LUBRICANTS

Dry, powdered lubricants will not attract dust or dirt, nor gum up from an accumulation of grime or airborne particles. Unlike many wet lubes, they are not affected by high or low temperature extremes. Dry lubricants are ideal for sliding surfaces because the powder works like micro-fine ball bearings between the surfaces. However, dry lubes need to be replaced more often than oil because they do not cling as well to the lubricated parts. Dry lubricants are perfect for use in low-friction areas, and on parts exposed to dust or dirt, or where gumming and oil drips cannot be tolerated. Oils are often preferred over dry lubes for lubricating because they tend to "float" items being lubricated. However, dry powders can be used on virtually any material, as they will not be absorbed into more porous surfaces such as woods and plastics. Many dry lubricants are commercially available, but Hob-E-Lube is produced specifically for hobby needs.

**DRY GRAPHITE (HL651)** with molybdenum, contains lubricating properties which tend to make it the preferred dry lubricant. It continues to break down into smaller graphite particles as it is applied to areas of increasingly tighter fit. This means Dry Graphite has more "cling" than Dry White Lube and will adhere to smooth surfaces for longer-lasting lubrication. Dry Graphite can cause smudges, so care should be taken to not stain model finishes. Graphite conducts electricity and should not be used on switches or other electrical contacts.

Dry Graphite is excellent to use on

- Model railroad trucks, axles, journals and couplers
- R/C airplane, boat and car push rods, control cables, steering and throttle linkages, roller bearings and bell cranks
- PineCar Derby<sup>®</sup> racers
- Household locks, hinges, glides and window and door tracks

**DRY WHITE LUBE (HL652)** with PTFE, will not conduct electricity. It is white and non-staining and can be used with parts that will be handled frequently, on exposed model surfaces, or anywhere a clean lubricant is needed. Although it does not have the "cling" or adherence properties of Dry Graphite, nor does it break down into smaller particles as readily, its PTFE additive does impart super-slippery qualities for enhanced lubrication.

Dry White Lube is ideal for use on

- Electrical switches and model railroad switch machines
- N & Z scale worm and spur gears, trucks, valve gears, drive and side rods, couplers and bolster pins
- Model airplane control surface connections
- Slot-car pins
- Instruments, gauges, curtain rods, pull-chair switches and other uses requiring a non-staining, non-conductive lube

### OILS

Oils generally have the best lubricating properties of all lubricants because they add a thin, wet film between bearing surfaces to reduce friction, heat and wear. Oils literally "float" one load-bearing surface on another. Oils are available in different weights or viscosities and can contain different additives to impart specific properties and characteristics to the oil. An excellent theory concerning the use of oil is to apply the lightest weight possible that will "float" the load-bearing surface. This usually means that the smaller the parts or lighter the load, the lighter the oil needed to lubricate the parts. Light oils will penetrate hard-to-reach areas by capillary action, allowing a drop of oil applied to the end of an enclosed axle shaft to penetrate into the shaft and provide lubrication. By their nature and tendency to run off, lighter oils must be replaced more often than heavier oils. If unsure, it is generally safe to experiment with the different oils for best results. Hob-E-Lube oils are of the highest quality and formulated for model use. They will help protect against rust and are designed to be used in wide temperature ranges without breaking down. Unlike many other brands, they will not harm plastic or paint.

**ULTRA-LITE OIL (HL653)** is an extremely light viscosity oil formulated for model use with small and precision parts. Ultra-Lite Oil penetrates and lubricates tight, close-tolerance areas.

Ultra-Lite Oil is ideal for use on

- HO scale and smaller model railroad journals, side rods, valve gears and

axles.

- Motor bearings and couplers
- Slot-car pinions and spur gears
- Precision instruments, fishing reels and office machines

**LITE OIL (HL654)** has a multi-viscosity additive that reduces the oil's tendency to thin out at high temperatures. A good, general-purpose hobby lubricant formulated for most light-to-medium load-bearing applications.

Lite Oil is designed for use on

- R/C bearings and linkages
- HO scale and larger model railroad side rods, gears, journals and motor bearing surfaces
- Workshop and garden tools, small appliances and casters

**GEAR LUBE (HL655)** is a tough, long-lasting, heavy-duty lubricant with tack additive for anti-drip adherence. It will stay put where applied. Gear Lube is specifically formulated to be used on small gears and linkages with high-friction points.

Gear Lube is ideal for use on

- R/C car ball joints and large servo gears
- Model train power gears and locomotive cross heads
- Mowers, bikes, chains and overhead door rollers

### GREASES

Greases are a mixture of fluid lubricants (usually oils) and thickeners dispersed in those oils. Because greases do not flow readily, they are used where extended lubrication is required and where oil would not be retained. Lubrication qualities of both the thickener and the oil used in the resulting grease are important. Hob-E-Lube greases are formulated from the highest quality materials for model usage. Both are highly resistant to water, work well as water-tight sealants around shafts and will provide protection against rust and corrosion. Greases are great for enclosed gear boxes and bearings because they are long-lasting and do not need to be replaced as often as oils. If unsure, it is safe to experiment with both greases for best results.

**MOLY GREASE (HL656)** with molybdenum, is a black grease that maintains its viscosity at high-temperatures, provides maximum no-drip lubrication and corrosion protection with minimum washout under exposed conditions. Its black color can cause smudges, so care should be taken to not stain model finishes. The molybdenum additive imparts residual properties. Moly Grease will work well with parts that need to withstand heavy vibration.

Moly Grease is suggested for use on

- HO scale and larger model railroad power transmission gears
- R/C boat propeller shafts
- R/C car gears, shafts, axles, joints and bearings
- Boat trailers and snowmobiles

**WHITE GREASE (HL657)** is a clean, non-staining model-safe lubricant with the super-slippery qualities of PTFE. Although this grease will not withstand as much heat as Moly Grease, it is water resistant and provides superb protection against corrosion. White Grease is ideal for all high-friction and heavy load-bearing points and all areas exposed to weather.

White Grease is excellent for use on

- R/C model boat shafts and gear boxes
- Outdoor garden-railroad axles, journals and couplers
- Wheel bearings and outboard motors