Lee Valley

100% Pure Tung Oil

56Z10.00/.01/.02

Tung oil is a finishing product that provides a tough, flexible and highly water-resistant coating. It is classed as a drying oil along with linseed, poppy seed, safflower seed, walnut, soybean, oiticica and a few other oils.

Although relatively new to the Western world, tung oil has been known for centuries to the Chinese, and until this century, China was the main source for the oil. It comes from the seed of the tung trees, *Aleurites fordii* and *Aleurites montana*, deciduous trees that are very susceptible to frost damage. This vulnerability has restricted the cultivation of tung trees to China and South America.

Tung oil received wide application in China: in the building trades as a treatment for both stone and wooden structures; in marine trades as a preservative and water repellent on wooden boats. It is said to have been introduced to the West by Marco Polo. From the 13th to the 19th century, tung oil had only limited use in the West. In the 19th century it was adopted by the paint companies to become a major component in paints and varnishes. More recently, tung oil has gained favor over linseed oil for furniture finishing because it is faster drying and does not darken as much with age.

Properties and Characteristics

Pure tung oil is water and alkali resistant. It resists marring, is elastic and unlikely to check. Tung oil builds quickly and consolidates the wood surface. This oil has been heat-treated to prevent premature gelling. Nonetheless, it should be kept in an airtight container with minimum air space and not left standing open for more than a couple of hours. Tung oil is non-toxic in the heat-treated pure form.

Use

Your wood must be free of loose particles and completely smooth, as scratches or sanding marks may be emphasized when covered with oil. The surface should be dusted to remove all loose particles. Since tung oil may raise the grain of the wood, you should moisten the surface to make any fiber ends stand up, and once dry, use sandpaper or steel wool to remove them before oiling. Alternatively, you can lightly sand the first coat before applying the second. Any filling, sealing or staining must be done before the oil is applied.

The first coat should be a liberal one, and you can rub it over the wood with your hand, a soft rag, or #000 steel wool (#0000 deteriorates badly). Allow this application to sit for 5 to 10 minutes so the oil can soak in, then remove any excess with a clean, soft rag or steel wool. Check after about a half-hour for any seeping, and rub this off as well. Let dry completely (24 to 48 hours) between coats. For woods with very open pores, allow an extra 24 hours drying time.

Tung oil can be applied pure (without additives) if a non-toxic finish is required. If this is not necessary, you can accelerate the drying process and greatly improve the penetration by cutting the first coat of oil with mineral spirits by 50%. Remember: pure tung oil becomes toxic with these substances mixed into it, although the finish produced is not toxic because the driers evaporate.

The number of coats of oil to be applied will be determined by the intended use of the piece. Two to four coats are enough for decorative work, panelling and molding. Surfaces that receive moderate use or handling will need about six coats. Heavily used surfaces, such as table tops, should be given ten or more coats for maximum protection, plus a light renewal coat a couple of times a year. Renewal and building coats are quickly applied with steel wool. This process will give you a surface that will stand up to vigorous use and spills; water will bead on the surface.

Pure tung oil is recommended for kitchen tables, chopping blocks and boards, and similar uses. Its non-toxic nature makes it particularly appropriate for children's toys and furniture. It gives good protection to wood panelling and molding.

Pure tung oil's matte finish will do nicely on certain pieces of furniture, but if a glossy finish is preferred, you will need to buff and wax the finish, or use polymerized tung oil or a formulated tung-oil-based product. By itself, pure tung oil will not give good results on steps, floors, or in outdoor applications, and for these uses it is usually mixed with good-quality varnish to give a highly effective protection. We recommend further reading and testing on mixtures for these uses.

Tung oil can be painted over with excellent results, and the oil will enhance the paint's adherent qualities. We have found tung oil to be a valuable helper in the workshop. It adheres very well to metal, and a light coat rubbed onto tool steel is an effective rust inhibitor. Wooden handles will also benefit from the occasional coat.

Storage

Given its tendency to gel, pure tung oil should never be left standing open for more than a couple of hours. It will keep indefinitely in an airtight container that protects it from light and extremes of temperature. Remember to dispose of oily rags promptly and safely.

Reference

Gunstock Finishing and Care by Donald Newell, *Bailey's Industrial Oil and Fat Products – Vol. 1 – 4th Edition*

Warranty

At Lee Valley, we have come to believe that tung oil is the finest of natural finishing oils. Although we guarantee this preparation to be of the highest quality, its correct use and application is beyond the control of the manufacturer and seller. No warranty is made with respect to results from the use of this product. We consider this line to be the best and most carefully formulated available. If you are not satisfied with the product itself, your money will be promptly refunded.

DANGER OF COMBUSTION. Materials such as rags or steel wool when used with this product may begin to burn by themselves. After use, put rags in water or lay flat to dry, then discard. Keep out of reach of children.

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