

Recommendations for Proper Tire Storage & Handling

The proper storage and handling of tires will minimize premature aging and will ensure that the tires appearance and performance will be maintained.

1. Temperature and Light

Tires should be stored in a cool place, away from direct sunlight or strong artificial light. Both heat and light are sources of oxidation of the tire surfaces. Long term storage at ambient temperatures is the same as short term storage at elevated temperatures. The store-room temperature should be below 77 °F, preferably the room should be dark and below 59 °F. The properties of rubber may change, affecting the service life of the tire, if the temperature is above 77 °F or below 32 °F. Cool storage does not have any adverse effect on rubber products. Tires must be protected from light, particularly from direct sunlight and intense artificial light with high ultraviolet content.

2. Oxygen and Ozone

Ozone has a very strong deteriorating effect on tires. The store-room must not contain any ozone-producing equipment, such as high-voltage electrical equipment, electric motors, generators, arc welders, switches, fluorescence lamps or mercury vapor lamps, or any other electrical equipment that may generate sparks or electric discharges. These are all active sources of ozone. Ozone attacks rubber causing it to crack perpendicular to any applied stress. Minor ozone will induce surface cracks. These cracks seldom cause tire issues, but can create an access route for foreign material to penetrate the tire casing.

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3. Deformation, Stress in Storage

If possible, tires should be stored freely not mounted and not inflated. If possible, tires should be stored vertically on the tread so they are not under stress, pressure, or torsion. Strong tire deformities developed during long-time storage may break when pressurized. Un-mounted tires stacked horizontally (on sidewall) should be piled symmetrically and never so high as to cause severe distortion to bottom tire. A general rule of thumb indicates that tire storage piles shall not exceed 6 feet in height, to prevent deformation and damages of the tires at the bottom.

4. Solvents, Oils, Greases, Heat

Mounted or un-mounted tires should never be stored on oily floors or otherwise in contact with solvents, oil or grease. Tires should never be stored in the same or adjoining rooms with volatile solvents or chemicals. Tires must also be protected from powerful light, spatter from electric welding or other sources of heat.

5. Humidity

Extremely humid conditions should be avoided. Humidity in the store-room must not be high enough that condensation will occur on the tire. Tires must not be stored in conditions where they are exposed to water.

6. Tire Handling

When handling tires do not drop tires higher than 5 feet or tire damage could result. Typical consequence of a high impact from the drop could be a kinked/bent bead. If you find a tire with kinked bead it is not recommend that the tire is mounted.