



DUO-SAFETY LADDER CORPORATION

Ladder Facts

Fire Department ladders are constructed of 3 possible material types: ie; Wood, Fiberglass or Aluminum. All fire department ladders were made of wood 100 years ago. However, today, man made materials have taken over the market because of lighter weight and greater reliability. Also, today lumber has become scarce and very expensive.

Fire Ladders - General

Aluminum ladders, like any other designed and engineered metal products, are built to exact tolerances with precise usage and safety factors built in. Duo-Safety fire ladders in general are designed and built to carry a 750 lb. load with a 4:1 safety factor. Aluminum and Fiberglass materials lend themselves to ladder construction very nicely for several reasons:

- * Both are man made and there is no guess work about the design limits of the materials. You just decide where you need your limits and design the material size to fit.
- * All the material is the same - every time - quality control is easy.
- * Aluminum is used to save weight on the ladders.
- * Fiberglass is used to reduce electrical hazard.
- * Lumber, however is a natural product - not man made - thus every tree and board is different and has a different load limit.
- * Lumber (wood) ages rapidly and tends to swell and shrink with changes of temperature and humidity. These changes affect the load limit almost daily.
- * Aluminum and Fiberglass are basically not affected by these daily changes and their load limits do not change daily.

Thus, it becomes apparent for the most reliable ladder products, Aluminum and Fiberglass have become the only remaining choices.