

**DESCRIPTION**

The **Durtec case hardening powder** is specially designed to increase the hardness of steel parts. It produces a superior hardness even on low-carbon steels. It is quick-acting, easy to use and safe since it is non-flammable. Special activating agents accelerate the impregnation process and confer to carbon steel the same hardness as that of expensive high-carbon steels, while preserving the steel's tenacity and fracture toughness.

**Durtec** deposits also prevent surface decarburization and minimize the risk of distortion. The **Durtec case hardening powder** may also be sprinkled on the cutting edge of steel tools prior to quenching to produce an exceptionally hard tip while making the steel less susceptible to brittleness.

**CHARACTERISTICS**

- **Economical, quick-acting and easy to use**
- Non-flammable and odorless
- Hardens only specific areas of a part
- Preserves the surface polish

**TYPICAL APPLICATIONS**

Cutting tools, machinery and jigs, pneumatic tools and molds, replacement parts, gears, conveyor hooks knives, grinders, shears, etc.

**PROCEDURE**

**1 - HEAT:** Uniformly heat the part in an oven or by torch until it becomes red hot (900°C or 1652°F) or bright red (950°C or 1742°F).

**2 - DIP:** Plunge the red hot part into the **Durtec** powder until completely covered, and let it cool until it becomes light red (700°C or 1292°F).

**3 - REHEAT:** Reheat the part until it becomes red hot, and repeat the same steps without cooling.

**4 - QUENCH:** Plunge the heated part in water or in oil until it has cooled completely.

Depending on the desired hardness (light, medium or extremely hard and deep), repeat the operation once, twice or three times, while keeping the part hot, and wait until the last operation before plunging in water. Generally, when quenching finished or machined parts, it is recommended not to heat the part at a temperature higher than bright red (950°C or 1742°F) to avoid the deterioration by heating of the finished parts.

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*Specialized welding alloys and technology. For technical assistance or for ordering:*