



TOWERDRAW TC-88 & TC-89

TOWERDRAW TC-88 and **TC-89** are a modified complex chemical soap, water soluble paste, formulated as a lubricant for metal forming. They provide a strong barrier film, high degree of lubricity, and extreme pressure protection for the tooling. **TOWERDRAW TC-88** and **TC-89** are primarily intended as a mandrel lubricant for tube and pipe bending and for end forming operations. They can be used on a wide variety of metals including; ferrous, stainless steel, aluminized, titanium, inconel, aluminum, and copper alloys. The only difference between the two products is the **TOWERDRAW TC-89** contains a solid film lubricant, PTFE, to reduce the Coefficient of Friction and improve the lubricant film strength. **TOWERDRAW TC-89** should be used on higher strength materials and on more difficult bends.

USAGE

TOWERDRAW TC-88 and **TC-89** are normally used as supplied, but may be diluted with water by *adding water to the paste with agitation*. It must be mixed in this order to form a stable emulsion. They can be applied by hand or brush or pumped through the mandrel for draw bending applications. **TOWERDRAW TC-88** and **TC-89** do not harden in the drum, mandrel, or on the tooling. Use equipment rated for pumping NLGI #1 grease for pumping. They are easy to clean with a mild alkaline cleaner such as **TOWERKLENE 42-A** or **246-A**.

TOWERDRAW TC-88 and **TC-89** are normally best if used within six months of the manufacture date. Keep containers sealed when not in use.

PHYSICAL CHARACTERISTICS

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|------------|-----------------------|
| Appearance | Pale Yellow Paste |
| Odor | Mild |
| Density | 0.94 g/ml 7.8 lbs/gal |

BENEFITS

- Does Not Contain Chlorine or Sulfur
- Contains No Hazardous Ingredients
- Can be Pumped or Hand Applied
- Weld Through Without Cleaning
- Does Not Harden Like Pigmented Lubes
- High Performance Lubricant For Draw Bending
- Cleans in Aqueous Wash Systems
- Is Operator Friendly

TECHNICAL SUPPORT

This is a Proprietary product. TOWER wants to assist you in evaluation and selection of suitable products. We urge you to take advantage of this service. This information sheet and TOWER's assistance, however, are not a substitute for your own testing and evaluation.