October 1994 Bulletin

Justifying Stress Tempering

This page was updated - May 11, 2003

Most die casters are constantly under pressure to keep up with increasing demand for their customer's production requirements. Quite often these demands allow very little time for preventative maintenance procedures that would normally be followed. **Residual tensile stresses in tooling continue to build** with the use of the die. If these internal and surface stresses are not normalized by heat stress tempering and then encapsulated by **MetaLife®**, die life is significantly affected. Skipping either of these usually will manifests shortened tool life. The die caster or end user incurs additional cost for new tooling or subsequent repair of the used tooling to fix conditions that could have been avoided by a proactive maintenance program. In the long run, nothing is gained by meeting production requirements at the expense of the tooling.

Thermal Heat Stress Tempering

Every die caster knows that periodic heat stress tempering will help to extend a tool's life. Quite often, however, production requirements do not allow time to have this done. Badger Metal now offers this service in conjunction with having the die **MetaLife®** processed. When sending tooling to us for processing simply state on the paperwork or call and let us know that the inserts are to be stress tempered prior to **MetaLife®**. We will handle the rest. We use an outside certified source performs this service for us on a one day basis. Depending on the size and amount of inserts involved this can add 1 to 1 1/2 days to our normal 3 day turn around time. Rockwell readings taken both before and after the inserts are atmosphere furnace tempered assure a quality product. The cost of processing is added as a separate item and shown on your invoice.

last modified - 11 May 2003