

## **SPI Mold Class**

### **CLASS 101 MOLD**

Cycles: One million or more

Description: Built for extremely high production. This is the highest priced mold and is made with only the highest quality materials.

- Detailed mold design required.
- Mold base to be minimum hardness of 28 R/C.
- Molding surfaces (cavities and cores) must be hardened to a minimum of 48 R/C range. All other details, such as sub-inserts, slides, heel blocks, gibs, wedge blocks, lifters, etc. should also be of hardened tool steels.
- Ejection should be guided.
- Slides must have wear plates.
- Temperature control provisions to be in cavities, cores and slide cores wherever possible.
- Over the life of a mold, corrosion in the cooling channels decreases cooling efficiency thus degrading part quality and increasing cycle time. It is therefore recommended that plates or inserts containing cooling channels be of a corrosive resistant material or treated to prevent corrosion.
- Parting line locks are required on all molds.

### **CLASS 102 MOLD**

Cycles: Not exceeding one million

Description: Medium to high production mold, good for abrasive materials and/or parts requiring close tolerances. This is a high quality, fairly high priced mold.

- Detailed mold design required.
- Mold base to be minimum hardness of 28 R/C.
- Molding surfaces should be hardened to a 48 R/C range. All other functional details should be made and heat treated.
- Temperature control provisions to be directly in the cavities, cores, and slide cores wherever possible.
- Parting line locks are recommended for all molds.
- The following items may or may not be required depending on the ultimate production quantities anticipated. It is recommended that those items desired be made a firm requirement for quoting purposes:
  - a. Guided Ejection
  - b. Slide Wear Plates
  - c. Corrosive Resistant Temperature Control Channels
  - d. Plated Cavities

### **CLASS 103 MOLD**

\*Cycles: Under 500,000

Description: Medium production mold. This is a very popular mold for low to medium production needs. Most common price range.

- Detailed mold design recommended.
- Mold base must be minimum hardness of 8 R/C.
- Cavity and cores must be 28 R/C or higher.
- All other extras are optional.

### **CLASS 104 MOLD**

\*Cycles: Under 100,000

Description: Low production mold. Used only for limited production preferably with non-abrasive materials. Low to moderate price range.

- Mold design recommended.

- Mold base can be of mild steel or aluminum.
- Cavities can be of aluminum, mild steel or any other agreed upon metal.

**CLASS 105 MOLD**

Cycles: Not exceeding 500

Description: Prototype only. This mold will be constructed in the least expensive manner possible to produce a very limited quantity of prototype parts.

- May be constructed from cast metal or epoxy or any other material offering sufficient strength to produce minimum prototype pieces.