

**Rapid Prototyping Parts & Low Volume Products** 

METAL MATERIAL DATA

## SWISS MACHINING MATERIALS

**SWISS MACHINING TURNED COMPONENTS** – ProtoEdge offers the materials listed below. However, since we make components out of a wide range of metal and plastic materials we are not limited to materials shown for prototypes and short-run production solutions. So if you require a material that is on the list, please let us know and we will review your request. Actual capabilities are dependent upon manufacturing, equipment, materials, and part requirements. For unique requirements to ensure specs are met within the limitation of our technologies, capabilities and processes, a 2D drawing print (s), tolerances, and / or other requirements are required in writing when quotation is requested. We are fully equipped to fabricate components for companies and can quote from PDF 2D drawing (s), STEP, IGES, and SLDPRT model formats.

| Technology:                              | Advanced Subtractive Manufacturing<br>Swiss Machining |
|--|---|
| Material type:                           | Metal and Plastic                                     |
| Aluminum 6061 – T6:                      | Soft Metal  |
| Aluminum 2011:                           | Soft Metal  |
| Brass:                                   | Soft Metal  |
| ABS – (Acrylonitrile Butadiene Styrene): | Rigid Plastic   |
| PVC (Polyvinyl Chloride):                | Rigid Plastic   |
| Polyamide-Imide:                         | Rigid Plastic   |
| Nylon:                                   | Rigid Plastic   |
| PTFE (PolyTetraFluoroEthylene):          | Rigid Plastic   |
| Teflon®:                                 | Rigid Plastic   |
| PC – Clear (polycarbonate):              | Rigid Plastic   |
| PEEK – Natural (PEEK):                   | Rigid Plastic   |
| Stainless Steel – 304/304L:              | Hard Metal  |
| Stainless Steel – 316/316L:              | Hard Metal  |



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| Steel Alloy 4140: | Hard Metal   |
|-------------------|--|
| Titanium:         | Hard Metal   |
| Tolerance:        | ± .0004 – ± .0001 accuracy may vary depending on material and wall thicknesses.  |
| Outer Diameter:   | Minimum Inquire – Maximum 1.25<br>inches (32mm)  |
| Overall Lengths:  | Minimum Inquire – Maximum Inquire  |
| Applications:     | Fittings, Hydraulic Poppets, Needle<br>Valves, Nozzles, Pins, Precision<br>Electronic Connectors, Seals,<br>Shafts, Shanks, Sleeves, Spacers,<br>Terminals, Valve Stems, and Valve<br>Bodies Applications. |

Disclaimer: The data above is general information and may vary from machine to machine or supplier to supplier. All tolerance specifications reflect the approximate range of a process's capabilities and should be viewed only as a guide. These dimensional tolerances, buyer assumes sole responsibility for the design, and must test and verify the material of the product for each specific application applies to their internal requirements.