

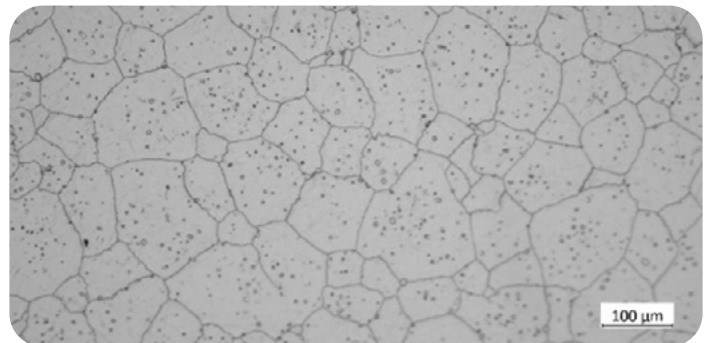
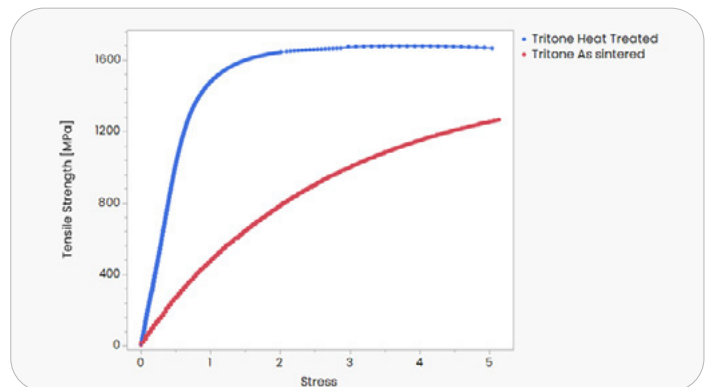
## MATERIAL DATASHEET

# H13 TOOL STEEL

Large Container: 50-MTLP-0213 | Small Container: 50-MTLP-1213

## COMPOSITION (ASTM A681)

| Composition | Amount     |
|-------------|------------|
| Chromium    | 4.75-5.5%  |
| Molybdenum  | 1.10-1.75% |
| Vanadium    | 0.8-1.2%   |
| Silicon     | 0.8-1.25%  |
| Carbon      | 0.32-0.45% |
| Manganese   | 0.2-0.6%   |
| Phosphorous | 0.03% max  |
| Sulfur      | 0.03% max  |
| Iron        | Bal.       |



## MECHANICAL PROPERTIES

|                           | Test Standard | Tritone<br>as sintered | Tritone<br>heat treated | Wrought<br>ASTM A276 |
|---------------------------|---------------|------------------------|-------------------------|----------------------|
| Ultimate Tensile Strength | ASTM E8       | 1240 MPa               | 1679 MPa                | 1580 Mpa             |
| 0.2% Yield Strength       | ASTM E8       | 750 MPa                | 1421 MPa                | 1360 Mpa             |
| Elongation at Break       | ASTM E8       | 3%                     | 5%                      | 14%                  |
| Hardness                  | ASTM E18      | 37 HRC                 | 50 HRC                  | 46 HRC               |
| Relative density          | ASTM B962     | 95%                    |                         | 100%                 |

The mechanical properties are typical values obtained by independent laboratory from parts processed in an industrial sintering furnace.