



1.4404 is a stainless austenitic chromium-nickel-molybdenum stainless steel with low carbon content. This versatile stainless steel is used in numerous industries. These include:

- medical devices and tools
- food and chemical industry
- jewellery and lifestyle industries
- automotive industry
- aerospace

316L is one of the standard materials in almost all metallic additive manufacturing processes and can be processed and machined particularly well. In contrast to welding AM processes (e.g. LPBF), components produced by LMM have a stress-free, annealed microstructure due to the sintering process.

With the LMM technology a surface quality of up to Ra 2 µm can be achieved.

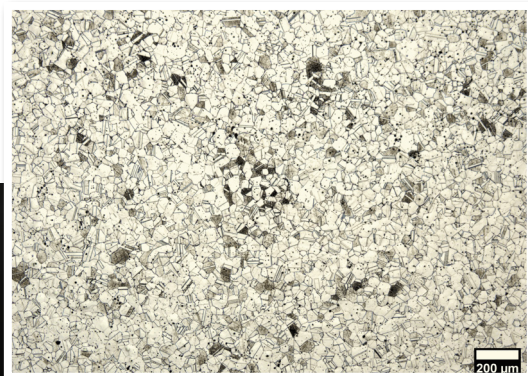
CHEMICAL COMPOSITION

| | Cr | Ni | Mo | Mn | Si | P | C | S | Fe |
|---------------------|------|------|-----|------|------|------|-------|-------|-----------------|
| MINIMUM | 16,0 | 10,0 | 2,0 | 0,00 | 0,00 | 0,00 | 0,000 | 0,000 | BALANCED |
| ACTUAL VALUE | 16,6 | 10,5 | 2,2 | 1,55 | 0,63 | 0,02 | 0,020 | 0,006 | |
| MAXIMUM | 18,0 | 14,0 | 3,0 | 2,00 | 1,00 | 0,04 | 0,030 | 0,030 | |

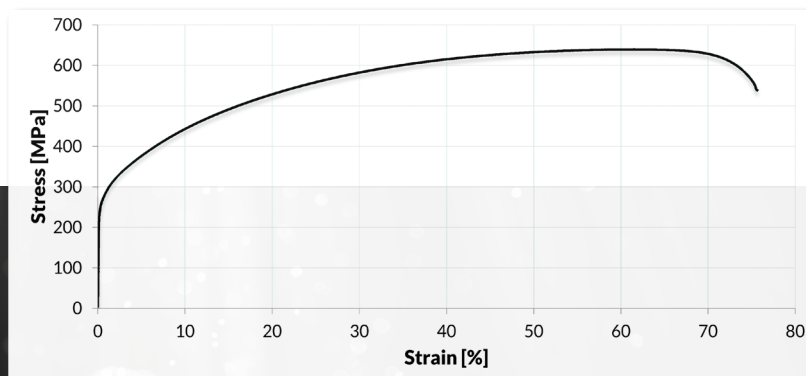
MECHANICAL DATA

Values in %

| | Tensile strength Rm [MPa] | Yield strength Rp0,2 [MPa] | Young's Modulus [GPa] | Fracture Elongation A [%] | Relative density [%] |
|---------------------------|------------------------------|-------------------------------|--------------------------|------------------------------|-------------------------|
| VALUES | 664 | 257 | 176 | 75 | > 97 |
| STANDARD DEVIATION | 47 | 26 | 48 | 4 | - |
| STANDARD | DIN EN ISO 6892-1 | DIN EN ISO 6892-1 | DIN EN ISO 6892-1 | DIN EN ISO 6892-1 | Archimedes |



Microstructure 316L



Stress Strain Diagram

PROPERTIES

- high corrosion resistance
- high strength
- food grade
- weldability

Disclaimer: These values are based on the test procedures, which are based on the specified ISO standards. They may vary in the event of deviations from these. Talk to our experts, who will be happy to clarify any open questions for you in advance!