

## ATI Allegheny Ludlum Stainless Steel Chromium-Nickel-Manganese AL 201LN™, M-8 (UNS S20153)

Category : Metal , Ferrous Metal , Stainless Steel , T S20000 Series Stainless Steel

### Material Notes:

AL 201LN™ is a special composition of Type 201 specifically for sub-zero temperature service as welded tanks and vessels. This alloy has replaced the familiar 300 series stainless such as type 301 or type 304 in many applications based upon technical equivalency and economic considerations. AL 201LN alloy is a natural choice for use at temperatures down to -320°F. The alloy is suited for many ambient temperature structural applications, such as railroad freight cars, truck trailers, coal handling and other bulk transport equipment where there is need for a good combination of corrosion resistance, strength, toughness and ease of fabrication. Information provided by Allegheny Ludlum Corporation.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_ATI-Allegheny-Ludlum-Stainless-Steel-Chromium-Nickel-Manganese-AL-201LN-M-8-UNS-S20153.php](http://www.lookpolymers.com/polymer_ATI-Allegheny-Ludlum-Stainless-Steel-Chromium-Nickel-Manganese-AL-201LN-M-8-UNS-S20153.php)

| Physical Properties | Metric     | English                   | Comments |
|---------------------|------------|---------------------------|----------|
| Density             | 7.857 g/cc | 0.2839 lb/in <sup>3</sup> |          |

| Mechanical Properties      | Metric                          | English                          | Comments   |
|----------------------------|---------------------------------|----------------------------------|------------|
| Tensile Strength, Ultimate | 669 MPa<br>@Temperature 70.0 °C | 97000 psi<br>@Temperature 158 °F | transverse |
| Tensile Strength, Yield    | 343 MPa<br>@Temperature 70.0 °C | 49700 psi<br>@Temperature 158 °F | transverse |
| Elongation at Break        | 56.5 %<br>@Temperature 70.0 °C  | 56.5 %<br>@Temperature 158 °F    | transverse |
| Izod Impact                | 154 J                           | 114 ft-lb                        | transverse |

| Component Elements Properties | Metric        | English       | Comments   |
|-------------------------------|---------------|---------------|------------|
| Carbon, C                     | <= 0.030 %    | <= 0.030 %    |            |
| Chromium, Cr                  | 16 - 17.5 %   | 16 - 17.5 %   |            |
| Copper, Cu                    | <= 1.0 %      | <= 1.0 %      |            |
| Iron, Fe                      | 71 %          | 71 %          | as balance |
| Manganese, Mn                 | 6.4 - 7.5 %   | 6.4 - 7.5 %   |            |
| Nickel, Ni                    | 4.0 - 5.0 %   | 4.0 - 5.0 %   |            |
| Nitrogen, N                   | 0.10 - 0.25 % | 0.10 - 0.25 % |            |

| Component Elements Properties | Metric <sup>15</sup> % | English <sup>5</sup> % | Comments |
|-------------------------------|------------------------|------------------------|----------|
| Silicon, Si                   | <= 0.75 %              | <= 0.75 %              |          |
| Sulfur, S                     | <= 0.015 %             | <= 0.015 %             |          |

## Contact Songhan Plastic Technology Co.,Ltd.

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