

# Advanz™ 6HS – s600

# Novelis

Novelis Advanz™ 6HS – s600 is a heat treatable product specifically designed and optimized for high strength requirements. The product shows good formability and bake hardening response. Due to its superior in-service strength, this alloy is ideal for down-gauging for structural applications.

## Mechanical Properties

The product shows good formability and bake hardening response. Due to its superior in-service strength, this alloy is ideal for down-gauging structure components. All values listed are typical.

| Temper                                | UTS (Rm) | YS (Rp0.2) | total elongation A80 |
|---------------------------------------|----------|------------|----------------------|
| T4 Delivery (e)                       | ≥230 MPa | ≤160 MPa   | ≥22%                 |
| T4 Delivery (s)                       | ≥220 MPa | ≤160 MPa   | ≥23%                 |
| T6 2% pre-strain, 20 min @ 185 °C (e) | ≥290 MPa | ≤250 MPa   | ≥16%                 |

e = typical for exterior applications; s = typical for structure applications

## Chemical Composition (wt. %)

the composition of e600 is within the composition of AA6451. Composition below is not 100% confirm to AA6451

| Si         | Fe     | Cu     | Mn           | Mg           |
|------------|--------|--------|--------------|--------------|
| 0.60 - 1.0 | ≤ 0.35 | ≤ 0.20 | 0.05 - 0.20  | 0.40 - 0.8   |
| Cr         | Zn     | Ti     | Others, each | Other, total |
| ≤ 0.10     | ≤ 0.15 | ≤ 0.05 | ≤ 0.05       | ≤ 0.15       |

## Physical Properties

|                                  |  |
|----------------------------------|--|
| Density                          | 2.7 x 10 <sup>3</sup> kg/m <sup>3</sup>  |
| Elastic Modulus                  | 70,000 N/mm <sup>2</sup>                 |
| Coefficient of Thermal Expansion | 8.00 x 10 <sup>3</sup> kg/m <sup>3</sup> |
| Thermal Conductivity             | 160 – 190 W/mK                           |
| Electrical Conductivity          | 26 – 30 m/Ωmm <sup>2</sup>               |

## Production Regions

Our manufacturing footprint allows us to tailor solutions for auto-makers around the world. Novelis Advanz™ 6HS – s600 is produced in the following locations:



Asia



Europe



North America

## What surface treatments are available?

Acid Etch  
TiZr  
PT3  
AlubVs  
Mp-404  
RP4107  
E1  
DC290  
61-AUS/6130

Acid Etch  
TiZr  
PT3  
AlubVS  
E1  
PL39SX  
EDT

Acid Etch  
TiZr  
A951  
B2 (in development)  
AlubVs  
Mp-404  
RP4107  
E1

Additional services may be available through our distributors, please contact your Novelis sales representative for more information.

## What finishing processes are available?

Cut-to-length  
Laser Blank

Cut-to-length  
Laser Blank  
Edge Trimming  
Slitting

Edge Trimming  
Slitting

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## What gauges are available?

0.9 -3.0 mm

0.9 -3.0 mm

0.9 -3.0 mm

Please contact your Novelis sales representative for more information about available widths and gauges.

## Contact Novelis

Novelis Global Automotive  
[novelis.com/automotive](http://novelis.com/automotive)

Not just aluminum, Novelis Aluminum.™



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