

# Alleima® 13C

## Strip steel

## Datasheet

Alleima® 13C is a hardened and tempered carbon precision strip steel. The characteristics of Alleima® 13C strip steel are:

- Good etchability
- Close dimensional tolerances
- Good flatness
- Good surface finish
- Good wear resistance
- Good shape after etching and subsequent fabrication
- Good response to laser re-hardening

### Standards

- W.Nr.: (1.0612)
- DIN: CK 65

### Chemical composition (nominal)

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C	Si	Mn	P	S	Cr
0.61	0.2	0.7	≤0.025	≤0.005	0.25

### Applications

Alleima® 13C has proven to be successful in applications with high requirements on flatness in combination with exact dimensional tolerances. Typical applications are found in the printing industry as label dies (flexible dies), electronic industry and also process industry for various applications.

### Forms of supply

The strip steel is supplied in labelled coils or as straightened lengths. The label informs about steel grade, nominal size, lot number and sandvik order number.

The material is protected against rust with an oil.

The coils are wrapped in paper. In Europe the material is delivered on pallets with plastic cover. For overseas shipment it is packed in wooden cases.

## Dimensions

### Thickness

Thickness	Tolerance
mm (in.)	mm (in.)
0.44-0.60 (0.017-0.024)	+0.017 (+0.00067)
0.61-1.40 (0.024-0.055)	+0.020 (+0.00079)

The maximum thickness variation (crown or wedge) across the strip is 0.008 mm (0.0003 in.)

### Width

The width range is 400-1200 mm (15.7-47.2 in.) with standard tolerance + 1 mm (+0.039 in.).

## Finishes

### Edges

Edges are slit

### Flatness

Maximum out-of-flatness across the strip is 0.4 % of the nominal strip width.

### Surfaces

The material normally has a grey surface, but it can be supplied white-polished on request.

#### Surface roughness

Maximum surface roughness ( $R_a$ ) value is 0.5  $\mu\text{m}$  (20  $\mu\text{in.}$ ) at a cut-off length of 0.8 mm (0.031 in.)

#### Surface defects

A small number of surface defects, such as pits and roll marks, with a depth or height of max. 5  $\mu\text{m}$  (200  $\mu\text{in.}$ ) is allowed, max. 10  $\mu\text{m}$  (400  $\mu\text{in.}$ ) for single pits.

The maximum allowed scratch depth (excluding burrs) is 2.5  $\mu\text{m}$  (100  $\mu\text{in.}$ ).

### Straightness

Out-of-straightness is defined as the maximum deviation from a straight-edge of a specified length. The following value applies: 1 mm/m (0.036 in./3 feet)

## Mechanical properties

### At 20 °C (68 °F)

The tensile strength,  $R_m$  is 1300-1800 MPa (189-261 ksi) with a manufacturing tolerance of + 80 MPa (+11.6 ksi)

#### Disclaimer:

Recommendations are for guidance only, and the suitability of a material for a specific application can be confirmed only when we know the actual service conditions. Continuous development may necessitate changes in technical data without notice. This datasheet is only valid for Alleima materials.