



isovac 1000-100 A

The perfect solution for direct application

Manufactured in the most modern production lines, this fully processed isovac® grade exhibits highly homogeneous properties across the width and length of the entire strip. The result is excellent and consistent processability in the manufacture of highly efficient electrical components. Upon request, isovac 1000-100 A can be supplied with an electrical steel insulation system and can be used directly in as-delivered condition.

Convincing advantages:

- » Best processability through consistent mechanical properties and homogeneous, clean surfaces
- » Excellent stackability resulting from high dimensional accuracy in rolling direction and perpendicular to rolling direction (thickness tolerance)
- » Innovative electrical steel insulation systems upon request



Premium quality
with reduced carbon footprint

isovac®
greentec steel

voestalpine supplies isovac 1000-100 A, an electrical steel of the highest quality. We offer you a customer-focused overall package of products, service and logistics in addition to all the advantages of our integrated metallurgical facility and Steel Service Centers.

Grade named pursuant to conventional international standards:

| Grade named according to isovac® | DIN EN 10106 | | IEC 60404-8-4 | JIS C2552 | GOST 21427.2 | ASTM A677 | AISI | IS648 | GB/T2521.1 |
|----------------------------------|--------------|--------------|---------------|-----------|--------------|-----------|------|----------|------------|
| | Material No. | Abbreviation | | | | | | | |
| isovac 1000-100 A | 1.0896 | M1000-100A | M1000-100A 5 | 100A1000 | - | - | - | 100C1000 | - |

Mechanical properties:

Tensile test pursuant to DIN EN ISO 6892-1

Test direction: Transverse

| Grade named according to isovac® | 0.2 %-Yield strength $R_{p0.2}$ [MPa] min. | Tensile strength R_m [MPa] | Elongation A_{80} [%] min. |
|----------------------------------|---|------------------------------------|---------------------------------------|
| isovac 1000-100 A | 285 | 410 - 460 | 33 |

Magnetic properties:

in as-delivered condition

Magnetic measurement pursuant to DIN EN 60404-2 (Epstein test)

Test direction: Mixed longitudinal and transverse

| Grade named according to isovac® | Specific total loss at 50 Hz | | | | Magnetic polarization at 50 Hz | | | | | |
|----------------------------------|------------------------------|------|------------------------|------|--------------------------------|------|------------------------|------|--------------------------|------|
| | 1.0 T P10 [W/kg] | | 1.5 T P15 [W/kg] | | 2500 A/m J25 [T] | | 5000 A/m J50 [T] | | 10000 A/m J100 [T] | |
| | max. | typ. | max. | typ. | min. | typ. | min. | typ. | min. | typ. |
| isovac 1000-100 A | 4.40 | 3.55 | 10.00 | 8.50 | 1.58 | 1.63 | 1.68 | 1.72 | 1.76 | 1.83 |

Physical properties:

Density in accordance with DIN EN 10106

Thermal conductivity measurement pursuant to EN ISO 22007-2 (Hot-disk-method)

| Grade named according to isovac® | Density ρ [g/cm ³] | Specific electrical resistance ρ_s [$\mu\Omega\text{cm}$] typ. | Thermal conductivity λ [W/mK] typ. |
|----------------------------------|---|--|---|
| isovac 1000-100 A | 7.80 | 31.1 | 32 |



Datasheets and simulation data are available at
www.voestalpine.com/isovac/en/product-overview/data-sheets

Available Dimensions

| Grade named according to isovac® | Delivery form | Width [mm] min. | Length [mm] |
|----------------------------------|-------------------------|-----------------|-------------|
| isovac 1000-100 A | Wide strip / Slit strip | 19 | - |
| | Cut-to-length sheets | 300 | 300 - 5000 |

Deliverable coating systems

| Grade named according to isovac® | Uncoated | C-3 | Backlack | C-5 | C-6 |
|----------------------------------|----------|-----|----------|-----|-----|
| isovac 1000-100 A | ☑ | ☑ | ☐ | ☑ | ☑ |

☑ Available ☐ On request



Premium quality with reduced carbon footprint



Fully processed electrical steel – greentec steel Edition

Max. carbon footprint 2.30 kg CO₂e per kg of steel ¹⁾

¹⁾ per EN 15804+A2 (EPD methodology) cradle to gate

All products, dimensions and steel grades listed in each voestalpine supply range are available as greentec steel Edition.

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Please find further information and downloadable files at the following link: www.voestalpine.com/isovac

