AIR HARDENING COLD WORK TOOL STEEL

A2 Tool Steel 1.2363 / SKD12 / X100CrMoV5

Air hardening cold work tool steel

5 % Cr + Mo + V	60–62 HRC	Ø1200 mm	EN 10204 3.1
Air hardening	Hardened and tempered	Max forged bar	Every lot

GRADE AND STANDARDS

Item	Detail
Designations	A2 / T30102 / 1.2363 / X100CrMoV5 / SKD12 / BA2
Standards	ASTM A681; DIN EN ISO 4957; JIS G4404
Delivery condition	Annealed max 230 HB
Melt route	EAF + vacuum degassing; ESR on request
Typical use	Stamping dies, forming rolls, trim dies, gauges, shear blades
Certificate	EN 10204 3.1 with chemistry, hardness and annealed structure

CHEMICAL COMPOSITION (% BY MASS)

C	Si	Mn	Cr	Mo	V
0.95–1.05	0.10–0.40	0.40–0.80	4.75–5.50	0.90–1.40	0.15–0.50

MECHANICAL PROPERTIES

Condition	Hardness	Toughness	Typical use
Annealed	≤230 HB	High	Machining
Hardened 950 C, temper 200 C	60–62 HRC	Moderate	Cutting and blanking dies
Hardened, temper 300 C	57–59 HRC	Better	Forming tools, punches
Hardened, temper 450 C	52–55 HRC	Best	Heavy forming, shock loading

SUPPLY RANGE

Form	Size range	Condition
Forged round bar	Ø80–1200 mm	Annealed / Q+T
Forged flat bar	Thickness 100–600 mm × width 300–2000 mm	Annealed
Rolled round bar	Ø10–200 mm	Annealed / as rolled
Hot rolled plate	Thickness 1–100 mm × width 60–1600 mm	Annealed

INSPECTION AND CERTIFICATION

- EN 10204 3.1 mill certificate - chemistry, mechanical properties and the heat number
- Ultrasonic inspection to SEP 1921 / ASTM A388 on request
- Hardness survey across the section on request
- Grain size to ASTM E112 on request
- ESR or remelt route where the application needs it

ORDERING INFORMATION

- Grade and standard
- Form and size - thickness x width x length, or diameter and cut length
- Quantity in pieces or kilograms
- Delivery condition and hardness window
- Certificate and inspection requirements

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EN 10204 3.1 mill certificate with every shipment
Chemistry · mechanical properties · test results · heat number

Hardness map and ultrasonic inspection on request.
Values are typical for the grade; the certificate of the actual heat governs.