Crane Rails (A45–A150)

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Istanbul · Dilovası plant

Crane rails are the hardened, high-carbon rails that overhead, gantry and portal cranes run on: the DIN 536 A-series with its wide foot and flat head (A45 to A150, 22–150 kg/m) for crane runways in workshops, steel plants, ports and container terminals, and the railway profiles S49 and UIC 60 used for lighter runways, rail-mounted machinery and industrial sidings. We supply them in 12 m lengths (6 m and 15–18 m on request) in 700–900 MPa rail steel from European and Turkish mills, with soft-clip and rigid fastenings, rubber pads, fishplates and thermit or flash-butt welding for continuous runways, exported to plants and ports in the Gulf, Iraq, Africa and Central Asia.

A45 – A150 (DIN 536) | S49 · UIC 60 | 700 – 900 MPa rail steel | 12 m (6 / 15 / 18 m) | Clips · pads · welding

A crane runway is a track, not a beam: the rail carries a wheel load of 10–60 t on a contact patch the size of a coin, so its head is hardened rail steel and its foot is wide enough to sit on a clip. DIN 536 A rails are what the crane maker specifies, and what we ship with the beams they bolt to.

CRANE RAIL DIMENSIONS AND WEIGHT PER METRE

Designation	Head width (mm)	Height (mm)	Foot width (mm)	kg/m	kg per 12 m	Bars per ton (12 m)
A45	45	55	125	22.1	265	4
A55	55	65	150	31.8	382	3
A65	65	75	175	43.1	517	2
A75	75	85	200	56.2	674	1
A100	100	95	200	74.3	892	1
A120	120	105	220	100.0	1 200	1
A150	150	150	220	150.3	1 804	1
S49 (49E1)	67	149	125	49.4	593	2
UIC 60 (60E1)	72	172	150	60.2	722	1

DIN 536 A rails have a flat head and a foot equal to about 2.8 × head width, made for clip fastening on a continuous pad; S49 and UIC 60 have the railway head profile and are fixed with baseplates and clips. Tolerances per DIN 536-1 / EN 13674: height ±0.5–1.0 mm, head width ±0.5 mm, length +30/−0 mm.

GRADES AND STANDARDS

Grade	Yield (MPa)	Impact	Use
Rail steel 700 MPa (DIN 536 / R200 class)	≈ 400	not specified	light and medium cranes, workshops
Rail steel 900 MPa (R260 class, 0.6–0.8 % C)	≈ 500	not specified	the standard crane-rail grade: steel plants, ports, heavy duty
R350HT head-hardened	≈ 700	not specified	container terminals, high wheel loads, long life
S355J2 flat bar rail (50 × 30 – 100 × 60)	355	27 J at −20 °C	light runways, monorails, budget
Rail with hardened head (induction)	≈ 800 head	not specified	special order, high-cycle duty

DIN 536 rails are supplied in tensile classes 690 and 880 MPa (commonly called 700 / 900); EN 13674 railway rails as R260 (880 MPa) or R350HT (1 175 MPa head-hardened). Chemistry of the 900 class: C 0.60–0.80, Mn 0.80–1.30, Si 0.15–0.60, P/S ≤ 0.025. Certification EN 10204 3.1 with hardness and tensile per rolling.

STANDARDS

DIN 536-1 — crane rails, A-series (A45–A150) · EN 13674-1 — railway rails (49E1 / S49, 60E1 / UIC 60) · DIN 536-2 / EN 13674 — rail steel grades (R260, R350HT, 700–900 MPa) · EN 1993-6 — crane supporting structures · EN 10204 3.1

Updated 22 September 2026 · figures are nominal; the mill certificate governs