

Material-Datasheet

Saarstahl - C15

Material-No.:

1.0401

Former brand name:

International steel grades:

BS: 080A15, 080M15
AFNOR: AF37C12, XC18
SAE: 1015, 1016, 1017

Material group:

Bright steels according to DIN EN 10277

Chemical Composition: (Typical analysis in %)	C	Si	Mn	P	S
	0,12 0,18	<0,40	0,30 0,60	0,045	0,045

Application:

Bright steels for general technical applications

**Hot forming and
heat treatment:**

**Mechanical
Properties:**

Rolled and peeled (+SH)

Thickness d [mm]	>= 5 - 10	> 10 - 16	> 16 - 40	> 40 - 63	>63 - 100
Hardness [HB]	-	-	98 - 178	98 - 178	98 - 178
Tensile strength R_m [N/mm ²]	-	-	330 - 600	330 - 600	330 - 600

Cold drawn (+C)

Thickness d [mm]	>= 5 - 10	> 10 - 16	> 16 - 40	> 40 - 63	>63 - 100
Proof stress $R_{0,2}$ [N/mm ²]	min. 380	min. 340	min. 280	min. 240	min. 215
Tensile strength R_m [N/mm ²]	500 - 800	480 - 780	430 - 730	380 - 670	340 - 600
Fracture elongation A_5 [%]	min. 7	min. 8	min. 9	min. 11	min. 12