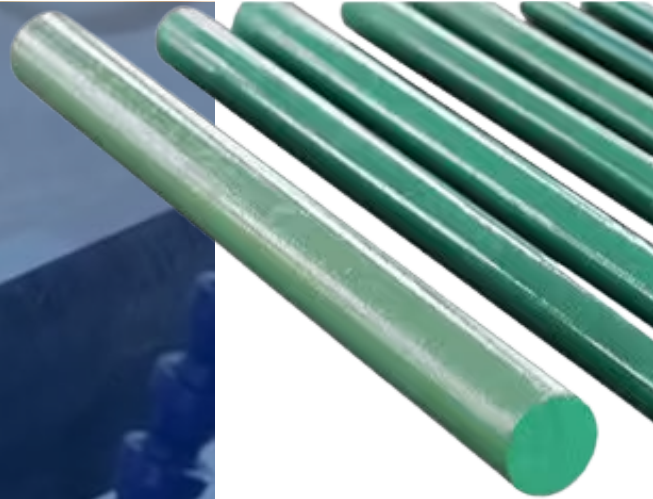


Plain Steel Dowel Bar

Infrastructure & rigid pavement applications | ASTM A615/A615M



FORGED BOLTS



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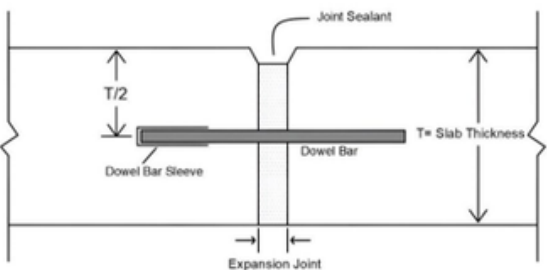
ENGINEERED FOR **EXTREAM** CONDITIONS



Fast -Track Construction Projects

High load capacity . Corrosion resistance . Compatibility with Epoxy coated, Stainless Steel and Galvanized options .



	STANDARDS ASTM A615 /615M •Standard specification for Deformed and Plain carbon steel bars for concrete reinforcement ASTM A653 /653M •Standard specification for steel sheet, zinc coated (Galvanized) or Zinc –Alloy iron coated (Hot Dip Galvanized) BS EN 13877 -2 •Functional requirements for concrete pavements BS EN 10088 -1 •Materials characteristics for stainless steel	APPLICATIONS 
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PRODUCT Smooth round, hot-rolled steel dowel bar supplied in cut lengths.	TYPICAL USE Concrete pavement joints, highways, airport pavements, bridge approaches, ports, industrial slabs and other load-transfer joints.
BASE MATERIAL Carbon steel to ASTM A615/A615M where specified; low-alloy alternatives such as ASTM A706/A706M may be offered subject to order.	FINISH OPTIONS Bare/black, project-specified epoxy, galvanizing or other approved corrosion-protection systems.

Product specification

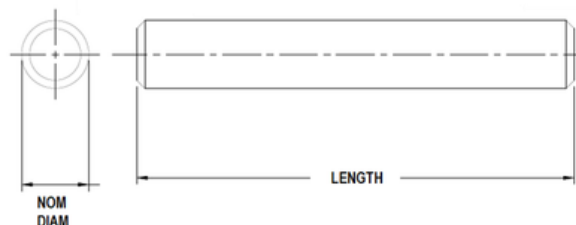
Parameter	Standard / requirement	Datasheet declaration
Product form	Plain / smooth round steel bar	Straight cut-length dowel; free of deformations
Primary material standard	ASTM A615/A615M-26	Deformed and plain carbon-steel bars for concrete reinforcement
A615 plain-bar grades	As permitted by the governing edition	Grade 60 [420] commonly specified; other permitted grades by order
Plain bar diameter limit	ASTM A615/A615M-26 scope	Up to and including 2.5 in. [63.5 mm]
Alternative low-alloy steel	ASTM A706/A706M, current project-required edition	For applications requiring controlled tensile / chemistry / enhanced weldability characteristics
Supply condition	Cut lengths	Hot rolled, straightened as required, cut and end-finished

Mechanical Properties

Property	Grade 40 [280]	Grade 60 [420]	Grade 75 [520]	Acceptance basis
Minimum yield strength	280 MPa	420 MPa	520 MPa	Applicable ASTM edition / PO
Minimum tensile strength	Per governing ASTM edition	Per governing ASTM edition	Per governing ASTM edition	MTC actual value + standard minimum
Elongation	Diameter-dependent	Diameter-dependent	Diameter-dependent	MTC actual value + standard minimum
Bend / ductility test	As required	As required	As required	MTC actual value + standard minimum

Standard size matrix & theoretical mass

Diameter D	Area	Theoretical mass	Typical order length L
12 mm	113.1 mm ²	0.888 kg/m	Project specified
16 mm	201.1 mm ²	1.578 kg/m	Project specified
20 mm	314.2 mm ²	2.466 kg/m	Project specified
25 mm	490.9 mm ²	3.853 kg/m	Project specified
28 mm	615.8 mm ²	4.834 kg/m	Project specified
30 mm	706.9 mm ²	5.549 kg/m	Project specified
32 mm	804.2 mm ²	6.313 kg/m	Project specified
36 mm	1017.9 mm ²	7.990 kg/m	Project specified
38 mm	1134.1 mm ²	8.903 kg/m	Project specified
40 mm	1256.6 mm ²	9.865 kg/m	Project specified
50 mm	1963.5 mm ²	15.413 kg/m	Project specified
63.5 mm	3166.9 mm ²	24.860 kg/m	Project specified



Slb Thickness (mm)	Dowel Bar dimensions		
	Diameter (mm)	Minimum Length (mm)	Spacing(mm)
200	25	360	300
230	30	400	300
250	32	450	300
280	36	450	300
300	38	500	300
350	38	500	300

Dimensional & workmanship requirements

Characteristic	Requirement to declare	Acceptance / test method
Nominal diameter	D = mm / in.	Caliper / micrometer at agreed locations
Diameter tolerance	mm or governing project requirement	Record max/min readings
Length	L = mm	Steel tape / calibrated length gauge
Length tolerance	+/- mm	Per PO / authority specification
Straightness / bow	Max mm over mm gauge length	Straightedge / certified jig
Ovality	Max diameter - min diameter <= mm	Two or more axes at agreed locations
End squareness	Max deviation mm or degrees	Square / fixture
End finish	Saw cut / shear cut / chamfered; burr limit mm	Visual + dimensional inspection
Surface	Smooth plain round; no ribs or deformations	Visual inspection
Surface condition	Free from harmful defects, loose contaminants and excessive pitting	Visual / project criteria

Chemical composition & weldability

Reporting item	Heat analysis	Remarks
Carbon (C)	MTC actual	Limit per applicable material standard
Manganese (Mn)	MTC actual	Limit per applicable material standard
Phosphorus (P)	MTC actual	Limit per applicable material standard
Sulfur (S)	MTC actual	Limit per applicable material standard
Si / Cu / Ni / Cr / Mo / V / Nb	Where reported / applicable	Especially relevant for low-alloy or project chemistry controls
Carbon equivalent (CE)	Report where required	Use calculation method required by governing specification

Corrosion protection & movement control options

Option	Data to state on product submittal	Project interface
Bare / black steel	Surface condition; rust acceptance; storage protection	May require separate approved bond breaker or lubricant
Epoxy-coated	Coating standard, material, thickness range, adhesion, holiday/damage acceptance, repair method	Confirm coating is approved for dowel movement and authority requirements
Galvanized / zinc-coated	Coating standard, thickness/mass, adhesion, finish, repair criteria	Confirm compatibility with project concrete/joint system
Other protective system	System name, manufacturer, approved thickness, tests, repair method	Submit authority approval / technical acceptance
Sleeve / debonding system	Sleeve material, length, cap/end detail, free-movement requirement	Normally defined by pavement joint design rather than steel grade

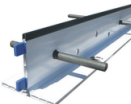
References and technical notes

ASTM A615/A615M-26 - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement. ASTM lists it as active, updated March 10, 2026. Its scope includes plain carbon-steel bars and plain bars up to 2.5 in. [63.5 mm].

ASTM A706/A706M - Standard Specification for Deformed and Plain Low-Alloy Steel Bars for Concrete Reinforcement. Use the exact edition required by the project/order. ASTM describes it for applications requiring more restrictive tensile/chemistry controls or enhanced weldability.

AWS D1.4/D1.4M - Structural Welding Code - Steel Reinforcing Bars, when welding is part of the approved design/procedure

Commonly used accessories

Plastic Sleeves with end cap	
Standard plastic sleeves	
Plastic Standard sleeves	
Continues plastic spacer	
Screed Rails	
Stop Plates	
Plastic spacer	



FORGED BOLTS



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