

# Armeringsstål



Element eller Egenskab	DS 411			Eurocode 2			
	DS 13080:2001			DS/EN 10080:2006			
Klasse	A	B	Fraktil	A	B	C	Fraktil
Flyde-/0,2-spænding $f_{yk}, f_{0,2k}, R_{eH}, R_{0,2k}$	>360 MPa		5,0%	400 – 600 MPa			5,0%
Maks. flydespænding	Intet krav		-	1,03 x maks. karak. langtidsværdi $f_{y, maks.} \leq 1,3 f_{yk}$			-
Min. flydespænding	96% af karak. værdi		-	0,97 x min. karak. langtidsværdi			-
Trækstyrke, $f_t, R_m$	Intet krav		-	Intet krav			-
Forholdet, Træk/flyde $(f_t/f_y)_k, (R_m/R_e)_k$	$\geq 1,08$		10,0%	$\geq 1,05$	$\geq 1,08$	$\geq 1,15$ <1,35	10,0 %

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	DS 13080:2001			DS/EN 10080:2006			
Klasse	A	B	Fraktil	A	B	C	Fraktil
Maks. forhold	Intet krav		-	1,02 x maks. karak. langtidsværdi			-
Min. forhold	$\geq 1,05$		-	0,98 x min. karak. langtidsværdi			-
Tøjning ved maks. last, $\epsilon_{uk}, A_{gt}$	-	-	-	$\geq 2,5$ %	$\geq 5,0$ %	$\geq 7,5$ %	10,0%
Min. tøjning	-	-	-	0,80 x min. karak. langtidsværdi			-
Jævnt fordelt forlængelse efter brud, $A_j, A_g$	$\geq 3,0\%$	$\geq 8,0\%$	10,0%	-	-	-	-
Min. forlængelse	$\geq 2,5\%$	$\geq 7,5\%$	-	-	-	-	-

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REVISED MANDATE M 1115 TO CEN/CENELEC CONCERNING THE EXECUTION  
OF STANDARDISATION WORK FOR HARMONIZED STANDARDS ON  
REINFORCING AND PRESTRESSING STEEL (FOR CONCRETE)

**Furthermore regarding reinforcing steel, the EN should, in addition to the CE marking and the information accompanying CE marking, provide for a permanent marking on the product itself with information easy to be recognised and necessary to ensure traceability.**

### Reinforcing steel for concrete:

- wires, bars (including straightened decoiled bars placed as such on the market), rods, coils
- welded fabric
- indented strips
- lattice girders

### Prestressing steel,

- wires, strands, bars,
- prestressing cables

## REINFORCING STEEL PRODUCTS

### PERFORMANCE CHARACTERISTIC

- Elongation at maximum load
- Elongation at break load
- Weldability
- Sections and tolerances on sizes
- Bendability
- Bonding strength
- Shear force (for lattice girders and welded fabrics)
- Stress ratio (maximum strength/tensile yield strength)
- Tensile yield strength
- Tensile strength
- Cyclic load performance
- Fatigue (*not for welded fabric and lattice girder*)
- Strength at elevated temperature

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## PRESTRESSING STEEL PRODUCTS

### PERFORMANCE CHARACTERISTIC

- Stress ratio (ult. tens strength/tens. yield strength)
- Tensile yield strength
- Tensile strength
- Deflected tensile strength (for strands)
- Elongation at maximum load
- relaxation
- Sections and tolerances on sizes
- Surface geometry
- Modulus of elasticity (*only for stainless steel products*)
- Fatigue

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For products under system 1+, regarding the initial type testing of the product [see Annex III.1.a) of the CPD], the task for the approved laboratory will be limited to the assessment of the following characteristics:

- Elongation at maximum load
- Elongation at break load
- Weldability
- Sections and tolerances on sizes
- Bendability
- Shear force (for lattice girders and welded fabrics)
- Bonding strength
- Stress ratio (maximum strength/tensile yield strength)

- Tensile yield strength
- Tensile strength
- Strength at elevated temperature
- Fatigue (*not for welded fabric and lattice girder*)
- Cyclic load performance

For products under system 1+, for the continuous surveillance, assessment and approval of the factory production control [see Annex III.1.g) of the CPD], only parameters related to the following characteristics shall be of the interest of the approved body:

- Sections and tolerances on sizes
- Weldability
- Bonding strength

For the initial inspection of the factory and of the factory production control [see Annex III.1.f) of the CPD], parameters related to all the relevant characteristics shall be of the interest of the approved body.

**Normudvalget DS 411 har ved seneste møde besluttet at indføre EN 10080:2006 parallel med DS 13080, DS 13082, DS 13083 og DS 13084 og gældende indtil overgangsperioden for alle Euro Codes ophører ved udgangen af 2008**