

DECLARATION OF PERFORMANCE
N° DoP/EN 10210/16

1. Name and identification code :

Steel hollow section, according to EN 10210-1 & 2 : 2006

2. Type, lot or serial number of construction product :

Shape of cross-sections	Dimensions	Steel designation
Circular - HFCHS	Diameter 48.3 to 457 mm Thickness 4 to 16 mm	S235JRH, S275J0H, S355J0H, S355J2H, S355K2H, S355NH, S355NLH
Square - HFRHS	Dimension 40x40 à 400x400 mm Thickness 4 to 16 mm	S235JRH, S275J0H, S355J0H, S355J2H, S355K2H, S355NH, S355NLH
Rectangular - HFRHS	Dimension 60x40 to 500x300 mm Thickness 4 to 16 mm	S235JRH, S275J0H, S355J0H, S355J2H, S355K2H, S355NH, S355NLH
Elliptical - HFEHS	Dimension 120x60 to 480x240 mm Thickness 4 to 14.2 mm	S235JRH, S275J0H, S355J0H, S355J2H, S355K2H, S355NH, S355NLH

3. Designed use :

In metal structures or in metal and concrete mixed structures.

4. Name and address of manufacturer :

LORRAINE TUBES Grupo CONDESA
100 rue du Maréchal Foch
F – 54720 LEXY
France

5. Name and address of contact person at authorised representative:

Non applicable

6. System for Evaluation and verification of performances constancy :

System 2+

7. Notified body (here EN 10210-1 & 2 : 2006) :

AFNOR CERTIFICATION, n°0333 has certified the manufacturing production control system on the basis of an initial control system and of ongoing surveillance, evaluation and approval of the manufacturing production control system, according to the 2+ evaluation system, issuing the certificate of conformity 0333-CPD-138008 with date of concession 1st October 2007.

8. Technical Evaluation Body :

Non applicable.

9. Declared performances :

Essential features	Performances				Harmonised technical specifications
Dimensional and shape tolerances	According to EN 10210-1 & 2 : 2006, chapter 6				EN 10210-1 & 2 : 2006
Elongation	Steel grades		Minimal Elongation (A)		
	S235JRH		26 %		
	S275J0H		23 %		
	S355J0H		22 %		
	S355J2H		22 %		
	S355K2H		22 %		
	S355NH		22 %		
S355NLH		22 %			
Yield and tensile resistance strength	Steel grades	Minimal Yield strength (R _{eH})	Tensile resistance strength (R _m)		
		Thickness ≤ 16 mm	Thickness < 3 mm	Thickness ≥ 3 mm	
	S235JRH	235 MPa	360-510 MPa	360-510 MPa	
	S275J0H	275 MPa	430-580 MPa	410-560 MPa	
	S355J0H	355 MPa	510-680 MPa	470-630 MPa	
	S355J2H	355 MPa	510-680 MPa	470-630 MPa	
	S355K2H	355 MPa	510-680 MPa	470-630 MPa	
	S355NH	355 MPa	470-630 MPa		
S355NLH	355 MPa	470-630 MPa			
Impact testing	Steel grades	Minimal breackage energy upon impact KV (standard samples 10 mm)			
		Test temperature			
		-50°C	-20°C	0°C	20°C
	S235JRH	-	-	-	27 J
	S275J0H	-	-	27 J	-
	S355J0H	-	-	27 J	-
	S355J2H	-	27 J	-	-
	S355K2H	-	40 J	-	-
	S355NH	-	40 J	-	-
	S355NLH	27 J	-	-	-
Choc flexion tests are not necessary for nominal thicknesses of < 6 mm (§ 6.6.2 EN 10210-1 : 2006) For the flexion tests characteristic for reduced samples, § 6.6.2 de EN 10210-1 : 2006)					
Weldability	Conform with chapter 6.5, 6.7.1 and tables A.2 et B.2 of EN 10210-1 : 2006				
Durability	Conform with chapter 6.7.2 of EN 10210-1 : 2006				

10. The performances of the product identified in points 1 and 2 are in conformity with the performances declared in point 9.

This declaration of performances is issued under the own responsibility of the manufacturer indicated in point 4.

Signed for and on behalf of the manufacturer :

Name and fonction

Date and place

Signature

LORRAINE TUBES
Daniel MARTINI
 Resp. QSE

A Lezy
 le 28/06/2013



DECLARATION OF PERFORMANCE
N° DoP/EN 10219/16

1. Name and identification code :

Steel hollow section, according to EN 10219-1 & 2 : 2006

2. Type, lot or serial number of construction product :

Shape of cross-sections	Dimensions	Steel designation
Circular - CFCHS	Diameter 13.5 to 508 mm Thickness 1.5 to 15.2 mm	S235JRH, S275J0H, S355J0H, S355J2H, S355K2H, S355MH, S355MLH, S420MH, S420MLH, S460MH, S460MLH, S355NH, S355NLH
Square - CFRHS	Dimension 20x20 to 400x400 mm Thickness 1.5 to 15.2 mm	S235JRH, S275J0H, S355J0H, S355J2H, S355K2H, S355MH, S355MLH, S420MH, S420MLH, S460MH, S460MLH, S355NH, S355NLH
Rectangular - CFRHS	Dimension 25x15 to 508x304.8 mm Thickness 1.5 to 15.2 mm	S235JRH, S275J0H, S355J0H, S355J2H, S355K2H, S355MH, S355MLH, S420MH, S420MLH, S460MH, S460MLH, S355NH, S355NLH
Elliptical - CFEHS	Dimension 25x12 to 420x240 mm Thickness 1.5 to 14.2 mm	S235JRH, S275J0H, S355J0H, S355J2H, S355K2H, S355MH, S355MLH, S420MH, S420MLH, S460MH, S460MLH, S355NH, S355NLH

3. Designed use :

In metal structures or in metal and concrete mixed structures

4. Name and address of manufacturer :

LORRAINE TUBES Grupo CONDESA
100 rue du Maréchal Foch
F – 54720 LEXY
France

5. Name and address of contact person at authorised representative :

Non applicable

6. System for Evaluation and verification of performances constancy :

System 2+

7. Notified body (here EN 10219-1 & 2 : 2006) :

AFNOR CERTIFICATION, n°0333 has certified the manufacturing production control system on the basis of an initial control system and of ongoing surveillance, evaluation and approval of the manufacturing production control system, according to the 2+ evaluation system, issuing the certificate of conformity 0333-CPD-138008 with date of concession 1st October 2007.

8. Technical Evaluation Body :

Non applicable.

9. Declared performances :

Essential features	Performances				Harmonised technical specifications
Dimensional and shape tolerances	According to EN 10219-1 & 2 : 2006, chapter 6				EN 10219-1 & 2 : 2006
Elongation	Steel grades		Minimal elongation (A)		
	S235JRH		24 %		
	S275J0H		20 %		
	S355J0H		20 %		
	S355J2H		20 %		
	S355K2H		20 %		
	S355MH		22 %		
	S355MLH		22 %		
	S420MH		19 %		
	S420MLH		19 %		
	S460MH		17 %		
	S460MLH		17 %		
	S355NH		22 %		
S355NLH		22 %			
Yield and tensile resistance strength	Steel grades	Minimal Yield strength (R _{eH})	Tensile resistance strength (R _m)		
		Thickness ≤ 16 mm	Thickness < 3 mm	Thickness ≥ 3 mm	
	S235JRH	235 MPa	360-510 MPa	360-510 MPa	
	S275J0H	275 MPa	430-580 MPa	410-560 MPa	
	S355J0H	355 MPa	510-680 MPa	470-360 MPa	
	S355J2H	355 MPa	510-680 MPa	470-360 MPa	
	S355K2H	355 MPa	510-680 MPa	470-360 MPa	
	S355MH	355 MPa	450-610 MPa		
	S355MLH	355 MPa	450-610 MPa		
	S420MH	420 MPa	500-660 MPa		
	S420MLH	420 MPa	500-660 MPa		
	S460MH	460 MPa	530-720 MPa		
	S460MLH	460 MPa	530-720 MPa		
	S355NH	355 MPa	470-630 MPa		
S355NLH	355 MPa	470-630 MPa			
Impact testing	Steel grades	Minimal breackage energy upon impact KV (standard samples 10 mm)			
		Test temperature			
		-50°C	-20°C	0°C	20°C
	S235JRH	-	-	-	27 J
	S275J0H	-	-	27 J	-
	S355J0H	-	-	27 J	-
	S355J2H	-	27 J	-	-
	S355K2H	-	40 J	-	-
	S355MH	-	40 J	-	-
	S355MLH	27 J	-	-	-
	S420MH	-	40 J	-	-
	S420MLH	27 J	-	-	-
	S460MH	-	40 J	-	-
	S460MLH	27 J	-	-	-
S355NH	-	40 J	-	-	
S355NLH	27 J	-	-	-	
Choc flexion tests are not necessary for nominal thicknesses of < 6 mm. For the flexion tests characteristic for reduced samples, see § 6.7.2 of EN 10219-1 : 2006)					
Weldability	Conform with chapter 6.6, 6.8.1 and tables A.2 et B.3 of EN 10219-1 : 2006				
Durability	Conform with article 6.8.2 of EN 10219-1 : 2006				

10. The performances of the product identified in points 1 and 2 are in conformity with the performances declared in point 9.
This declaration of performances is issued under the own responsibility of the manufacturer indicated in point 4.

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