

DECLARATION OF PERFORMANCE

According to Regulation EU No 305/2011

NO: 1

Unique identification code of the product-type	Cold formed welded structural hollow sections of non-alloy and fine grained steels Round Hollow Section, according to EN 10219-1:2006		
Identification	Shape of cross-sections	Dimensions	Steel designation
	Circular hollow sections	From \varnothing 6.0 mm upto \varnothing 406.4 mm Thickness: from 0.6 mm upto 12.5 mm	S235JRH, S275J0H, S275J2H, S355J0H, S355J2H, S355K2H, S275NH, S275MH, S355NH, S355MH, S460NH, S460MH, S420MH
	Square hollow sections	From 10x10 mm upto 300x300 mm Thickness: from 0.6 mm upto 12.5 mm	
	Rectangular hollow sections	From 10x20 mm upto 200x400 mm Thickness: from 0.6 mm upto 12.5 mm	
Intended use or uses of the construction product, in accordance with the applicable harmonised technical specification	White goods Furniture Automotive Construction		
Manufacturer	Özdemir Boru Profil San. Ve Tic. LTD.ŞTİ Head Office: Orhanlar Mahallesi, Yali Caddesi, No: 15, Karadeniz- Ereğli/ Zonguldak TURKEY Factory: Organize Sanayi Bölgesi, Hazma Fakılı Köyü, Karadeniz- Ereğli/ Zonguldak TURKEY		
System or systems of assessment and verification of constancy of performance of the construction product	System 2+		
Name and ID number of the notified Body	SZUTEST TEKNİK KONTROL VE BELGELENDİRME HİZMETLERİ TİC. LTD.ŞTİ. No. 2195,		
Declared performance			
Essential features	Performance	Harmonized technical specifications	
Dimensional and shape tolerances	As per Table 1	EN 10219 - 2 : 2006	
Elongation	As per Table 2	EN 10219 - 1 : 2006	
Yield and tensile resistance strength			
Impact strength			
Weldability	As per Table 2		
Durability	As per Table 3		

Table 1 - Dimensional and shape tolerances			
Characteristic	Circular hollow section	Square hollow sections	Rectangular hollow section
Outside dimensions (B: shorter side, H: longer side)	$\pm 1\%$ with a min of ± 0.5 mm	Side length mm	Tolerance
		H,B < 100	$\pm 1\%$ with a min of ± 0.5 mm
		100 \leq H,B \leq 200	$\pm 0.8\%$
		H,B > 200	$\pm 0.6\%$
Thickness (D: outside diameter, T: thickness)	for D \leq 406.4 mm: T \leq 5 mm $\pm 10\%$ T > 5 mm ± 0.5 mm	T \leq 5 mm $\pm 10\%$ T > 5 mm ± 0.5 mm	
Out of roundness	2 % for hollow section having a diameter to thickness ratio not exceeding 100		
Concavity/Convexity		max 0.8 % with a min of 0.5 mm	
Squareness of side		$90^\circ \pm 1^\circ$	
External corner profile (R: corner radius)		T \leq 6 mm R: 1.6 T to 2.4 T 6 mm < T \leq 10 mm R: 2.0 T to 3.0 T 10 mm < T R: 2.4 T to 3.6 T	
Twist		2 mm plus 0.5 mm/m length	
Straightness	0.20 % of total length and 3 mm over any 1 m length	0.15 % of total length and 3 mm over any 1 m length	
Mass	$\pm 6\%$ on individual delivered length		
Tolerances on length	- 0 / + 50 mm		

Table 2 - Mechanical Properties

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Essential features	Performances				
Elongation	Steel grades	Minimal elongation (A)			
	S235JRH	24%			
	S275J0H	20%			
	S275J2H	20%			
	S355J0H	20%			
	S355J2H	20%			
	S355K2H	20%			
	S275NH	24%			
	S275MH	24%			
	S355NH	22%			
	S355MH	22%			
	S420MH	19%			
	S460NH	17%			
	S460MH	17%			
Yield and Tensile resistance strength	Steel grades	Minimal Yield strength (ReH) MPa	Tensile Resistance strength (Rm) Mpa		
		Thickness (mm)			
		≤ 12.5	< 3	≥ 3 ≤ 40	≤ 40
	S235JRH	235	360-510	360-509	
	S275J0H	275	430-580	410-560	
	S275J2H	275	430-580	410-560	
	S355J0H	355	510-680	470-630	
	S355J2H	355	510-680	470-630	
	S355K2H	355	510-680	470-630	470-630
	S275NH	275			370-510
	S275MH	275			360-510
	S355NH	355			470-630
	S355MH	355			450-610
	S420MH	420			500-660
S460NH	460			540-720	
S460MH	460			530-720	

	Steel grades	Minimal breakage energy upon impact KV (standart samples 10 mm)		
		Test temperature (°C)		
		20	0	-20
Impact strength	S235JRH	27	-	-
	S275J0H	-	27	-
	S275J2H	-	-	27
	S355J0H	-	27	-
	S355J2H	-	-	27
	S355K2H	-	-	40
	S275NH	-	-	40
	S275MH	-	-	40
	S355NH	-	-	40
	S355MH	-	-	40
	S420MH	-	-	40
	S460NH	-	-	40
	S460MH	-	-	40

Table 3 - Durability			
Classes	Elements (%)		
	Si	Si + 2.5P	P
Class 1	≤ 0.030	≤ 0.090	-
Class 3	0.140 ≤ Si ≤ 0.250	-	≤ 0.030

Signed for and on behalf of the manufacturer by:

Sezai ORHAN

Özdemir Boru Profil San. Ve Tic. Ltd.Şti.

QUALITY MANAGER

19.08.2013

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