

# PG2:18

## Purchasing guidelines for: EN 10219-1:2006 High Tensile Tube [3.2 mm]



### INTRODUCTION


The purpose of this guidance note is to detail best purchasing practice for EN 10219-1:2006 High Tensile 3.2 mm scaffold tube. If the tube is sourced from an NASC compliant company, as demonstrated by the NASC CoP assessment report, then no further action is required, other than a visual inspection of your supplier's certificate of product compliance with the NASC CoP product audit (a list of suppliers and products may be found on the NASC website). If the tube is not sourced from an NASC compliant company, then the guidelines below should be followed.

### TEST DATA

Test data is the criteria to which the product is independently tested as seen on the test report example opposite, & should consist of:

- Annual testing should be on EN 10219-1 S355 JOH tube for all suppliers/manufacturers as follows:
- Chemical analysis [inc. nitrogen content.
- Mechanical analysis.
- Outside diameter & wall thickness dimension.
- Annual tests must be by a UKAS accredited facility or TUV/SGS.

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### The Test Laboratory Certificate of Test

Client: National Access and Scaffolding Confederation (NASC) Ltd., 12 Bridewell Place, London EC4V 6AP

Date of receipt: \_\_\_\_\_ Date of test: \_\_\_\_\_  
 Reference No.: \_\_\_\_\_ MI No.: \_\_\_\_\_  
 Order No.: \_\_\_\_\_ Specification: BS EN 10219-1 S355JOH

Description: Scaffold tube (650mm long)  
 Identity: EN 10219 S355 JOH  
 Test methods: TP31, BS EN ISO 5817:2014, TP01c-1, BS EN ISO 6892-1: 2016 Method A, OES MAXI & Fusion

Dimensional Measurements:		Mk: 6	
Tube outside diameter (after stripping of Galvanising) (Average of 4 readings) (mm):		48.51	
Tube wall thickness (after stripping of Galvanising) (Average of 5 readings) (mm):		2.98	
Parent tube outside diameter to wall thickness (D/T) ratio =		16.28	

BSEN 10219-2:2006 tolerances, outside diameter  $\pm 0.48$ mm for a nominal outside diameter of 48.3mm and  $\pm 0.32$ mm for a nominal wall thickness of 3.2mm.

TENSILE TEST(S)		Test machine calibrated to class 1, requirements of BS EN ISO 7500-1:2004								
Identity/Position	Mark	Dimensions			Proof stress		Max Stress		EI	RA
		Size	CSA	GL	Stress	Load	Stress			
		mm	mm <sup>2</sup>	mm	kN	N/mm <sup>2</sup>	kN	N/mm <sup>2</sup>		
Longitudinal tensile from Steel Tube	7	12.30 x 3.04	37.45	5.65	17.25	460	20.34	543	26.0	-
Fracture Description: Clean Fracture						355 min		470-630	20 min	-

Comments: Extensometer number E95053, calibrated to BS EN ISO 9513 2012 class 0.5, was used for these tests.  
 Note: The thickness measurement for Mk 2 includes the galvanised coating.  
 The straining rate up to 3% strain was 0.25% sec. After 3% the speed increased to a crosshead displacement rate of 2.50 mm/min.

CHEMICAL ANALYSIS		Element %							
Identity/Mk 3		C	Si	Ma	P	S	Nb	Cr	Al
Parent material		0.15	0.04	1.24	0.024	0.009	<0.01	0.01	0.042
		Mo	Ni	Ti	V	N	-	-	-
		<0.01	0.01	0.01	<0.01	0.0031	-	-	-

Comments: Chemical analysis carried out under the cover of UKAS Testing No. 0136. Tolerances for chemical composition to BS EN 10219-1:2006 Paragraph 6.6.1 Table 1 and Annex A, Table A1.  
 Summary: The tube sample tested met the dimensional, tensile and chemical requirements for BS EN 10219-1 S355JOH

- End of Test Results -

Note - The test results detailed above apply only to the sample(s) or material submitted to the laboratory.

Tests performed:	L. Jarvis, D. Johnson	Witnessed by:	
Certificate approved by:	M. Smith, Section Leader		
Signed: <i>M. Smith</i>	Date: 7.1.17		

The Test Laboratory, ..... Registered in England No. ....


## MATERIAL CERTIFICATION

You need to check that a material test certificate from the manufacturer/supplier are available for all EN 10219-1 tube. Below is an example of a material test certificate, which will detail the following information:

- The British or European specification/standard, EN 10219-1:2006 S355 JOH.
- The specification/standard should be clearly identified on the test certificate.
- The test certificate will detail that it is to the requirements of: EN 10204:2004 section 3.1.

Contact No:		<b>MILL TEST CERTIFICATE</b>										Certificate No: XXXXX					
Buyer: Buyer's name here		<b>EN 10204-3.1</b>										STANDARD: EN10219-1 DATE: XXXXXXX					
Description: SCAFFOLDING TUBE																	
ITEM	GRADE	SIZE (mm)	WEIGHT	HEAT NO	Chemical composition (%)						Mechanical property			Technical property			
					C	Si	Mn	P	S	AL	Tensile (N/mm <sup>2</sup> )	Yield (N/mm <sup>2</sup> )	Elongation %	Impact (J)		Bend	
														20 C	0 C	-20 C	
1	S355JOH	48.3*3.2*6400	743.556	L921182	0.17	0.02	0.16	0.018	0.01	0.029	565	440	37		62		Qualified
2	S355JOH	48.3*3.2*6400	750.505	L921186	0.19	0.02	1.170	0.016	0.012	0.024	575	456	34.0		60		Qualified
3	S355JOH	48.3*3.2*4870	249.586	L921188	0.17	0.01	1.140	0.017	0.011	0.026	579	421	30.0		65		Qualified
4	S355JOH	48.3*3.2*3960	149.632	L921183	0.16	0.02	1.140	0.013	0.007	0.024	564	433	32.5		60		Qualified
5	S355JOH	48.3*3.2*3050	106.636	L921183	0.16	0.02	1.140	0.013	0.007	0.024	564	433	32.5		60		Qualified
6	S355JOH	48.3*3.2*2430	91.819	L921183	0.16	0.02	1.140	0.013	0.007	0.024	564	433	32.5		60		Qualified
7	S355JOH	48.3*3.2*1520	78.89	L921188	0.17	0.01	1.140	0.017	0.011	0.026	579	421	30.0		65		Qualified
		TOTAL	2170.62														

Issuer: \_\_\_\_\_ Signed By: \_\_\_\_\_ DATE: \_\_\_\_\_



## MARKING REQUIREMENTS

You need to check that each tube is marked on the surface with the following information:

- Reference to EN 10219-1, S355 JOH.
- Registered trade mark, or the manufacturer's name, [as indicated by XXXXXX].

Tube should be marked at intervals not exceeding 1.5 m, with the height of the characters at least 4.00 mm and the depth should be at least 0.2 mm.



Whilst every effort has been made to provide reliable and accurate information, we would welcome any corrections to information provided by the Writer which may not be entirely accurate, therefore and for this reason, the NASC or indeed the Writer, cannot accept responsibility for any misinformation posted.