Date: 20.04.2021
Ref. No: 06

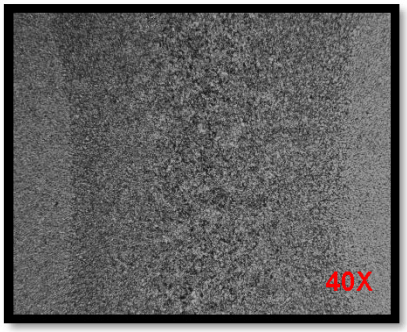
Assessment of suitability for EN 10255:2017 & EN 10217:2019 Part II standards.

Description of standards:

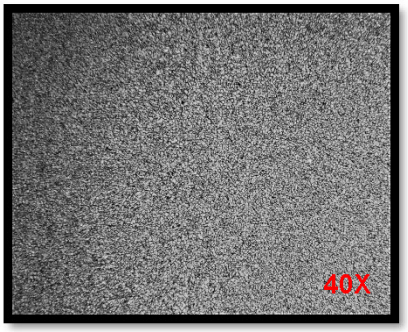
EN 10255:2007: Non-alloy steel tubes suitable for welding and threading.
EN 10217:2019 Part II: Welded steel tubes for pressure purposes-Technical delivery conditions-Part 2: Electric welded non-alloy and alloy steel tubes with specified elevated temperature properties.

As Çayırova Boru, we hereby confirm that we produce the pipes with all mandatory requirements of those standards. Also, our products are audited and certified in terms of suitability to the standards and Pressure Equipment Directive (PED) (2014/68/EU) & Construction Products Regulation (CPR) (305/2011/EU) by the body which notified by NANDO (New Approach Notified and Designated Organizations) for every year.

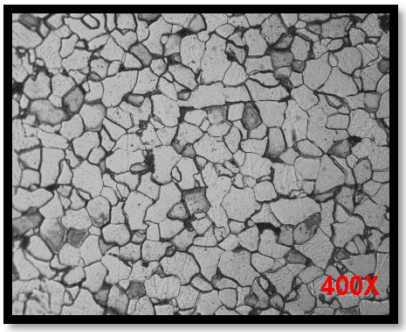
We perform full body & seam heat treatment process at the normalizing temperature to the pipes which are produced in our facility. Also, we check micro & macro structure after normalizing the weld zone for each batch number of raw materials with qualified staff in our metallography laboratory. The validation of our heat treatment process is given at figure 1.



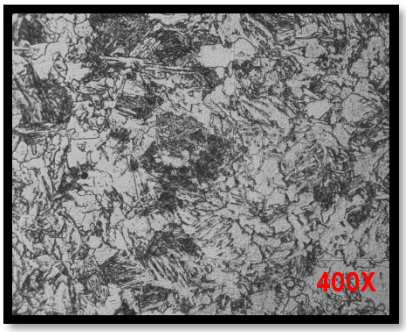
After Welding (Before Normalizing) Weld Zone
Heat Effected Zone (HAZ) Macrostructure



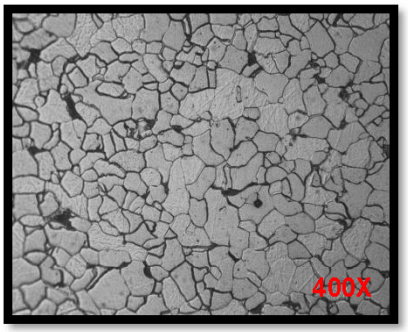
After Normalizing Macrostructure



Pipe Body Microstructure



After Welding Weld Zone Microstructure
(martensitic structure HAZ)



After Normalizing Weld Zone Microstructure

Figure 1: Validation of heat treatment process at our metallography laboratory

Our pipes are coated with water-based paint for temporary protective coating according to the satisfaction of both standards. This coating is applied to protect the pipes during transportation and storage. In case more protective coating is wanted by the purchaser, pipes can be delivered with powder epoxy coating.

The produced pipes are suitable for cold bending according to EN 10255 Standard item 9.4. All pipes are tested with rap bending machine according to specified bending radius to 90° during the production. These tests are performed before and after heat treatment process.

UKCA Marking are applied according to standards Annex Z.A with all requirements. On the other hand, we confirm and declare the pipe category and suitability to CPR & PED with our formal DOP & DOC. CE Marking symbol is marked on all pipes and labels according to requirements of these standards. If it specifies by the purchaser, additional marking requests can be performed.

We are able to make the following recommendations with regards to temperature and consequently pressure durability.

Pipe Size			Recommended maximum design pressure for screwed and socketed joints. Correctly made-up using suitable and appropriate jointing compounds						Recommended maximum design pressure for pipe or full penetration butt-welded joints. Butt-welded joints prepared in accordance with current best prectice (based on P235GH mechanical properties)							
			Pipe weight (M=Medium, H=Heavy) Pressure (Bar)						Pipe weight (M=Medium, H=Heavy) Pressure (Bar)							
			Water -20 to 60°C		Compressed Air		Steam to 300 °C max		-20 to 60°C		100°C max		150°C max		300°C max	
OD	Nominal Diameter															
mm	mm	inch	M	H	M	H	M	H	M	H	M	H	M	H	M	H
21.3	15	1/2	80	100	70	90	10	12	233	270	190	234	182	225	128	158
26.9	20	3/4	75	90	65	80	10	12	186	215	152	187	146	179	103	126
33.7	25	1	70	85	60	75	10	12	172	215	149	186	143	179	101	126
42.4	32	11/4	55	70	50	65	9	10	137	171	119	148	114	143	80	100
48.3	40	11/2	45	60	40	55	9	10	120	150	104	130	100	125	71	88
60.3	50	2	40	55	35	50	7	9	109	136	94	118	91	113	64	80
76.1	65	21/2	35	45	30	40	7	9	86	108	75	93	72	90	51	63
88.9	80	3	30	40	25	35	7	9	82	103	71	89	68	85	48	60
114.3	100	4	25	35	20	30	5.5	7	72	86	62	75	60	72	42	51
139.7	125	5	25	30	20	25	5.5	7	65	70	57	61	54	59	38	41
165.1	150	6	20	25	15	20	4	5.5	55	60	48	52	46	50	32	35

Therefore, the tubes that we produce DO conform to EN10255 and EN10217-2 P235GH&P265GH Standards and the Pressure Equipment Directive (PED) (2014/68/EU). This is also confirmed by globally accredited independent certification & Inspection company TUV Austria"

Attachments: 1- DOP for EN 10255 and Certificate
2- DOC for EN 10217 Part II and PED Certificate – Inspection Report

Best Regards,
Murat Orhon
Quality Manager