EN 10204-3.1 **MATERIAL TEST CERTIFICATE** №. 33940

SHIELD FIRE, SAFETY AND SECURITY LTD
Unit 3, Endeavour Drive, Basildon - Essex, SS14 3WF, UK
Middle East : UAE – Dubai – Jebel Ali Free Zone

Buyer (Address, country)

Order Number : 9-3242

Description of goods	Specification	Type of Pack
ERW BLACK STEEL PIPES ACCORDING TO ASTM A53 GRADE B SCH 40 IN 21 FOOT LENGTH WITH "SHIELD" MARKING	ASTM A53 GRADE B	In bundles

Item №.	Heat No.	Grade of steel	Dimensions (mm)		HydroTest	Quantity (Pcs)	Mass (Tons)
			Diameter	Wall	MPa		Net
1	K221902	Gr. B	1" (33.4)	(3.38) SCH 40	4.8	2460	38.49
2	K222101	Gr. B	1" (33.4)	(3.38) SCH 40	4.8	3300	51.63
3	K221602	Gr. B	1" (33.4)	(3.38) SCH 40	4.8	1620	25.34
4	K221501	Gr. B	1" (33.4)	(3.38) SCH 40	4.8	600	9.38
5	K221904	Gr. B	1" (33.4)	(3.38) SCH 40	4.8	480	7.51
					Total:	8460	132.35

It is hereby certified that the quality of goods mentioned in this Quality Certificate is in conformity with standards and specifications.

Compositions (%)									
Item №.	C ≤0.3	Mn ≤1.20	S ≤0.045	P ≤0.05	Cr ≤0.40	Ni ≤0.40	Cu ≤0.40	V ≤0.08	Mo ≤0.15
1	0.094	0.711	0.008	0.026	0.044	0.005	0.008	0.002	0.005
2	0.115	0.829	0.006	0.015	0.041	0.005	0.007	0.002	0.005
3	0.102	0.742	0.009	0.027	0.035	0.020	0.011	0.002	0.005
4	0.126	0.696	0.011	0.022	0.031	0.005	0.008	0.002	0.005
5	0.129	0.697	0.005	0.023	0.026	0.005	0.005	0.002	0.005

Mechanical Properties			
Heat Number	Tensile Strength Mpa ≥415	Yield Strength Mpa ≥240	Elongation (%)
K221902	502	325	36
K222101	515	319	35
K221602	550	288	34
K221501	557	326	32
K221904	501	333	40

NOTE: Pipes have been tested by Hydro test/Eddy current method with satisfactory result. Pipes are delivered with Black coating and caps.
Flattening Test/Bend test satisfactory, Visual & Dimensions Good.

Marking SHIELD, ASTM A 53, D", Sch, Grade B,
Heat Number

Signature:

SHIELD FIRE, SAFETY & SECURITY LTD. QC Dept.

Date: 20-Sep-2022