



**MATERIAL CERTIFICATES WITH MECHANICAL PROPERTIES AND CHEMICAL COMPOSITION
ACCORDING TO EN 10204 /3.1B PLUS BASE MATERIAL CERTIFICATES**

PO:ZPO-2103-0041

DATE:AUG/10.2021

QUANTITY	DESCRIPTION OF GOODS			MATERIAL	RESULT
500	Bush	3/8" X 1/4"	21073101	304	OK
500		1/2" x 1/4"			
800		3/4" x 1/2"			
50		1.1/4" x 1"			
100		1.1/2" x 1"			
20		2" X 1.1/2"			
20		2.1/2" X 1.1/2"			
30		3" X 2"			
20		3" X 2.1/2"			
100	Round Cap	2"	21073102		
50		3"			
50	Cross	1/2"			
50	45Elbow	1"			
100	90Elbow	1.1/4"			
750	Hose nipple	1/2"	21073103		
30		2 1/2"			
24		4"			
1000		1/4"			
300	Nipple	3/8"	21073104		
2000		1"	21073105		
2000		1"	21073106		
600		2"	21073107		
400		2"			
180		3"			
200	Red Hex Nipple	3/4" X 1/2"	21073108		
500		1" X 1/2"			
30		1.1/2" X 1/2"			
30		2.1/2" X 2"			
150	Square plug	1/2"	21073109		
300		3/4"			
50		1.1/4"			
70		3"			
400		3/8" x 1/4"			
150	Red Socket	1" X 1/2"	21073110		
150		2" X 1"			
10		2.1/2" X 2"			
15		3" X 2.1/2"			
700	Tee	1"	21073111		
150	Red Tee	3/4" X 1/2"			
350		1.1/2" x 1/2"			
20		1.1/2" x 3/4"			
10	1.1/2" X 1"	21073112			
800	Union Flat		3/4"		
700			3/4"		
500			1"		
300		1"	21073113		
100	1.1/4"				

HEAT NO.	CHEMICAL COMPOSITION								MECHANICAL PROPERTIES		
	C%	Si%	Mn%	P%	S%	Ni%	Cr%	Mo%	TENSILE STRENGTH	YIELD POINT	ELONGATION
	MAX	MAX	MAX	MAX	MAX				MPa	Mpa	>30%
	0.08	1.00	2.00	0.045	0.030	8.0/11.0	18.00/20.00		>485	>205	
21073101	0.058	0.770	0.961	0.029	0.021	8.11	18.10		OK	OK	OK
21073102	0.036	0.37	1.040	0.030	0.015	8.11	18.10		OK	OK	OK
21073103	0.037	0.55	1.030	0.037	0.013	8.07	18.09		OK	OK	OK
21073104	0.036	0.37	1.040	0.030	0.011	8.05	18.10		OK	OK	OK
21073105	0.040	0.53	1.080	0.032	0.014	8.04	18.12		OK	OK	OK
21073106	0.050	0.670	1.090	0.029	0.012	8.10	18.11		OK	OK	OK
21073107	0.052	0.660	1.100	0.030	0.011	8.16	18.06		OK	OK	OK
21073108	0.062	0.660	1.102	0.030	0.018	8.16	18.06		OK	OK	OK
21073109	0.039	0.57	1.040	0.037	0.013	8.06	18.10		OK	OK	OK
21073110	0.062	0.680	1.102	0.030	0.011	8.16	18.06		OK	OK	OK
21073111	0.036	0.57	1.040	0.037	0.013	8.06	18.10		OK	OK	OK
21073112	0.040	0.53	1.080	0.037	0.015	8.07	18.14		OK	OK	OK
21073113	0.058	0.770	0.961	0.029	0.021	8.10	18.10		OK	OK	OK
21073114	0.062	0.880	1.102	0.028	0.019	8.12	18.06		OK	OK	OK



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DATE:AUG/10.2021

QUANTITY	DESCRIPTION OF GOODS				MATERIAL	RESULT							
60	Bush	1" X 1/2"		21080201	316	OK							
240		1" X 3/4"											
10		1.1/2" x 1"											
55	Round cap	1/2"											
50	90Elbow	3/4"											
200		1"											
60	Hose nipple	1/4"											
210		1.1/2"											
630	Nipple	3/4"					21080202						
320		1"					21080203						
135		1.1/4"		21080204									
340		1.1/2"											
340		1.1/2"		21080205									
300		2"		21080206									
120	Red Hex Nipple	3/4" X 1/2"		21080207									
20	Square plug	3/8"											
30	Red Socket	1.1/2" x 1.1/4"											
80		2" X 1.1/2"											
35	Tee	1"											
45	Red Tee	2" X 1/2"											
250	Union Flat	2"					21080208						
ZPO-2011-0035 221	Nipple	2"		21080209									
HEAT NO.	CHEMICAL COMPOSITION								MECHANICAL PROPERTIES				
	C%	Si%	Mn%	P%			S%	Ni%	Cr%	Mo%	TENSILE STRENGTH	YIELD POINT	ELONGATION
	MAX	MAX	MAX	MAX			MAX				MPa	Mpa	>30%
	0.08	1.50	1.50	0.040			0.040	9.0/12.0	18.00/21.00	2.00/3.00	>485	>205	
21080201	0.060	0.78	0.88	0.022			0.025	9.13	18.49	2.16	OK	OK	OK
21080202	0.069	0.77	0.94	0.037			0.023	9.13	18.10	2.11	OK	OK	OK
21080203	0.056	0.76	0.94	0.037			0.023	9.11	18.10	2.15	OK	OK	OK
21080204	0.064	0.75	0.95	0.040			0.025	9.12	18.11	2.15	OK	OK	OK
21080205	0.060	0.78	0.88	0.022	0.025	9.13	18.10	2.11	OK	OK	OK		
21080206	0.060	0.78	0.88	0.022	0.025	9.13	18.49	2.16	OK	OK	OK		
21080207	0.071	0.77	0.94	0.037	0.023	9.13	18.10	2.11	OK	OK	OK		
21080208	0.056	0.76	0.94	0.037	0.023	9.11	18.10	2.15	OK	OK	OK		
21080209	0.060	0.78	0.88	0.022	0.025	9.13	18.49	2.16	OK	OK	OK		