



Certificate No.: FF24C201-1

TAIYUAN FF FLANGES & FITTINGS CO.,LTD.
TEST CERTIFICATE

Exporter: SP1 FITTINGS INC

Name of Material: DUCTILE IRON

Date of Report: JUN.15,2024

Materials Standard: ASTM A536

			Exterior inspection			Delivery status				
ASTM A536 Gr 65/45/12			QUALIFIED			FINISHED GOODS				
Name of material			Chemical composition %							
Furnace No.	C	Si	Mn	P	S	Re	Mg	/		
	3.50-3.90	2.25-3.00	0.15-0.35	0.050Max	0.025Max			/		
242035	3.58	2.32	0.20	0.035	0.018	0.025	0.042	/		
242039	3.62	2.40	0.18	0.042	0.022	0.029	0.043	/		
242028	3.54	2.35	0.23	0.036	0.015	0.026	0.042			
Mechanical Capability										
Furnace No.	Size of sample		Temp.	T.S(Mpa)	Y.S(Mpa)	Y.L(%)	(HB)	(Nodularity)		
	D(mm)		R.T	≥448	≥310	≥12	≤230	≥80%		
242035	12.5	50	R.T	472	335	13	183	87%		
242039	12.5	50	R.T	480	340	15	176	89%		
242028	12.5	50	R.T	485	342	13	185	85%		
The Ductile Iron Backup Rings are made according to the ANSI B16.5 Class150, Coating : Fusion Bound Epoxy in Blue Color										
Description		Code	Size	Furnace No.	Quantity	Description	Code	Size	Furnace No.	Quantity
DUCTILE IRON BACKUP RING		SDR7	2"	242035	400	DUCTILE IRON BACKUP RING	SDR7	8"	242028	1500
DUCTILE IRON BACKUP RING		SDR7	3"	242035	800	DUCTILE IRON BACKUP RING	SDR7	10"	242028	800
DUCTILE IRON BACKUP RING		SDR7	4"	242039	2000	DUCTILE IRON BACKUP RING	SDR7	12"	242039	900
DUCTILE IRON BACKUP RING		SDR7	6"	242035	2500					

We hereby certify that material here in described has been manufactured,inspected and tested in accord with above standard

signature:

Supplier stamp:





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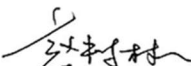
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Name of material			Exterior inspection			Delivery status			
ASTM A536 Gr 65/45/12			QUALIFIED			FINISHED GOODS			
Chemical composition %									
Furnace No.	C	Si	Mn	P	S	Re	Mg	/	
	3.50-3.90	2.25-3.00	0.15-0.35	0.050Max	0.025Max			/	
242022	3.59	2.48	0.23	0.040	0.020	0.024	0.045	/	
202033	3.66	2.39	0.19	0.039	0.017	0.022	0.043	/	
mechanical capability									
Furnace No.	Size of sample		Temp.	T.S(Mpa)	Y.S(Mpa)	Y.L(%)	(HB)	(Nodularity)	
	D(mm)		R.T	≥448	≥310	≥12	≤230	≥80%	
242022	12.5	50	R.T	489	352	14	188	82%	
242033	12.5	50	R.T	503	355	13	179	85%	
The Ductile Iron Backup Rings are made according to the ANSI B16.5 Class150, Coating : Fusion Bound Epoxy in Blue Color									
Description	Code	Size	Furnace No.	Quantity	Description	Code	Size	Furnace No.	Quantity
DUCTILE IRON BACKUP RING	SDR11	14"	242022	150	DUCTILE IRON BACKUP RING	SDR11	24"	242033	150
DUCTILE IRON BACKUP RING	SDR11	16"	242033	200					
DUCTILE IRON BACKUP RING	SDR11	18"	242022	200					
DUCTILE IRON BACKUP RING	SDR11	20"	242033	150					
We hereby certify that material here in described has been manufactured,inspected and tested in accord with above standard									
signature: 					Supplier stamp: 				