

MATERIAL TEST RESULT

MESSRS	UNIMECH ENGINEERING (M) SDN. BHD.
JOB NAME	
JOB No.	
P.O.No.	APO-2004-007
PRODUCT CODE	(TR)F<ZOP02>3/8

Certificate No.
1020329222-020-01-01-Z1

Date : 2020/07/21



Figure	F<ZOP02>3/8	Valve No.	
Material	JIS H 5120 CAC401	Item No.	48
Charge No.	Display No.	Name of Parts	
1	20022704-1	BODY	
2			
3			
4			

CHEMICAL COMPOSITION %

Element	Cu	Sn	Pb	Zn											
Spec.	79.0	2.0	3.0	8.0											
	83.0	4.0	7.0	12.0											
1	80.4	2.8	5.2	11.1											
2															
3															
4															
Element															
Spec.															
1															
2															
3															
4															

TENSION TEST

IMPACT TEST

Item			Tensile str.	Elongation					
Unit			N/mm2	%					
Spec.			Min	Min					
1			165	15					
2			218	22					
3									
4									

Item									
Unit									
Spec.									
1									
2									
3									
4									

HEAT TREATMENT °C

Spec.		
1		
2		
3		
4		

N:Normalizing A:Annealing T:Tempering Q:Quenching AC:Air Cooling
 WQ:Water Quenching OQ:Oil Quenching WC:Water Cooling FC:Furnace Cooling ST:Solution Treatment

REMARKS

Reviewed by

KITZ CORPORATION
QC Manager

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JOB NAME	
JOB No.	
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Certificate No.
1020329222-020-01-01-Z2

Date : 2020/07/21



Figure	F<ZOP02>3/8	Valve No.	
Material	ASTM B 283 C37700	Item No.	48
Charge No.	Display No.	Name of Parts	
1 210320		CAP	
2			
3			
4			

CHEMICAL COMPOSITION %

Element	Cu	Pb	Fe												
Spec.	58.0	1.5	Max												
	61.0	2.5	0.30												
1	58.9	1.9	0.08												
2															
3															
4															
Element	Zn														
Spec.	REM														
1	REM														
2															
3															
4															

TENSION TEST

IMPACT TEST

Item			Tensile str.	Yield str.	Elongation				
Unit			MPa	MPa	%				
Spec.			Min	Min	Min				
1			345	124	25				
2			436	329	29				
3									
4									

Item									
Unit									
Spec.									
1									
2									
3									
4									

HEAT TREATMENT °C

Spec.				
1				
2				
3				
4				

N:Normalizing A:Annealing T:Tempering Q:Quenching AC:Air Cooling
 WQ:Water Quenching OQ:Oil Quenching WC:Water Cooling FC:Furnace Cooling ST:Solution Treatment

REMARKS

Reviewed by

KITZ CORPORATION
QC Manager

We hereby certify that the articles listed above are satisfactory in accordance with the requirements of the standard and purchase order.