



# MATERIAL TEST RESULT

MESSRS	UNIMECH ENGINEERING (M) SDN. BHD.
JOB NAME	
JOB No.	
P.O.No.	APO-2004-0010
PRODUCT CODE	

Certificate No.  
1020330282-004-01-01-Z1

Date : 2020/06/04



Figure	10SJ3/4	Valve No.	
Material	ASTM A 395 Gr. 60-40-18	Item No.	4
Charge No.	Display No.	Name of Parts	
1 139		BODY	
2 13F		BONNET	
3			
4			

**CHEMICAL COMPOSITION %**

Element	C	Si	P	Mn												
Spec.	Min 3.00	*Max 2.50	Max 0.080													
1	3.62	2.66	0.018	0.28												
2	3.61	2.60	0.019	0.29												
3																
4																

  

Element															
Spec.															
1															
2															
3															
4															

**TENSION TEST**

**IMPACT TEST**

Item			Tensile str.	Yield str.	Elongation				
Unit			MPa	MPa	%				
Spec.			Min	Min	Min				
1			425	281	21				
2			430	282	21				
3									
4									

Item	Hardness	Microstructure							
Unit	HB	%							
Spec.	143	Min							
	187	90							
1	143	90							
2	143	90							
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**

\* Every 0.01% P reduction enables 0.08% Si increase each within the maximum 2.75%.  
 EN10204 Type 2.2

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 Reviewed by

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