

# QUALITY CERTIFICATE

CUSTOMER: 7TMW INC.

CONTRACT NO.: 14MPT007G

PRODUCT: A325 BOLT+2H NUT+F436 WASHER

INVOICE NO.:

CLASS: A325

CODE:

SIZE: 3/4-10X2 (Holdup)

QUANTITY: 10,000 pcs

## DIMENSIONS OF SPEC:

INSPECTION ITEMS		STANDARD	RESULT
VISUAL APPEARANCE			ok
BODY DIAMETER		19.51-18.52	18.92-18.95
THREAD	GO		
	NO GO		
WIDTH ACROSS FLATS		31.75-30.78	31.1-31.4
WIDTH ACROSS CORNERS		36.65-35.13	35.8-36.1
MAJOR DIAMETER		19.00-18.68	18.83-18.86
HEAD HEIGHT		12.27-11.56	11.8-12.0
SCREW LENGTH		50.80-45.97	47.2-48.89
THREAD LENGTH		FT	FT

## MECHANICAL PROPERTIES

CHARACTERISTICS		STANDARD	RESULT
Hardness	[HR]	max 34	29-31
Wedge Strength	[N/mm <sup>2</sup> ]	min 826	921-982
Yield Strength	[N/mm <sup>2</sup> ]	min 635	
Elongation	[%]	min 14	
Reduction of area	[%]	min 35	
Proof Load	[kN]	126.3	126.3
Thickness	[UM]	min 53	54-74

## CHEMICAL COMPOSITION(%)

MILL HEAT	C	Si	Mn	P	S	Cr	Ni	Cu	Mo	B
330200198	0.40	0.24	0.74	0.012	0.005	0.03	0.01	0.02		

Surface coating: HDG

Dimml Inspn: COMPLYING WITH THE STANDARD OF A325

The information on chemical composition is based on the test certificate received from the steel mill or supplier.

Material described in this document has been inspected under the parameters set forth and found to be in conformance with the physical requirement.

We certify the above product meets specific requirement thereof.

Quality Control Supervisor

Quality Control Manager