



WELDING CONSUMABLE CERTIFICATE

Certificate No.: 146391-4723329-001_____

Report No.: 4723329_____

Port of: Hamburg, Germany_____

Date: 13 April 2021_____

THIS IS TO CERTIFY

THAT THE UNDERSIGNED SURVEYOR TO THIS BUREAU DID, AT THE REQUEST OF VDM METALS GMBH, ATTEND THEIR PLANT AT WERDOHL, GERMANY, ON THE 13TH DAY OF APRIL, 2021 AND ON SUBSEQUENT DATES, IN ORDER TO CARRY OUT A PLANT SURVEY OF FACILITIES AND ASSOCIATED QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES AND TO WITNESS AND REPORT ON THE ANNUAL APPROVAL TESTING OF WELDING CONSUMABLES; AND,

THAT THE FACILITY IS CONSIDERED CAPABLE OF PROVIDING AN ACCEPTABLE UNIFORM PRODUCT, AND THAT EACH WELDING CONSUMABLE LISTED BELOW WAS FOUND IN COMPLIANCE WITH THE SPECIFICATION INDICATED AND IS ELIGIBLE TO BE PLACED ON THIS BUREAU'S APPROVED WELDING CONSUMABLES LIST IN THE GAS METAL ARC WELDING INCLUDING MIG/TIG WELDING SECTION:

<u>TRADE NAME</u>	<u>SPECIFICATION</u>	<u>GRADE OR CLASS</u>	<u>SHIELDING GAS</u>	<u>POSITION</u>	<u>CURRENT/POLARITY</u>	<u>SIZE</u>
VDM ® FM 67	AWS A 5.7	ERCuNi	GTAW: Ar, Ar + max. 3% H2	All	dcen	0.8-3.2 mm
VDM ® FM 67	AWS A 5.7	ERCuNi	GMAW: Ar, Ar + 30% He	F, V	dcep	0.8-1.6 mm
VDM ® FM 61	AWS A5.14	ERNi-1	GTAW: Ar, Ar + max. 3% H2	All	dcen	1.0-4.0 mm
VDM ® FM 61	AWS A5.14	ERNi-1	GMAW: Ar, Ar + 30% He	F, HV	dcep	0.8-1.6 mm
VDM ® FM 60	AWS A5.14	ERNiCu-7	GTAW: Ar, Ar + max. 3% H2	All, HF	dcen	1.0-4.0 mm
VDM ® FM 60	AWS A5.14	ERNiCu-7	GMAW: Ar, Ar + 30% He	F	dcep	0.8-1.6 mm
VDM ® FM C-276	AWS A5.14	ERNiCrMo-4	GTAW: Ar	All, HF	dcen	1.0-3.2 mm
VDM ® FM C-276	AWS A5.14	ERNiCrMo-4	GMAW: Ar	F, V, HF	dcep	0.8-1.6 mm



Norbert Ross SURVEYOR 

Note: This Certificate evidences compliance with one or more of the Rules, guides, standards or other criteria of American Bureau of Shipping and is issued solely for the use of the Bureau, its committees, its clients or other authorized entities. This Certificate is a representation only that the structure, item of material, equipment, machinery or any other item covered by this Certificate has met one or more of the Rules, guides, standards or other criteria of American Bureau of Shipping as of the date of issue. Parties are advised to review the Rules for the scope and conditions of classification and to review the survey records for a fuller description of any restrictions or limitation on the vessel's service or surveys. The validity, applicability and interpretation of this Certificate is governed by the Rules and standards of American Bureau of Shipping who shall remain the sole judge thereof. Nothing contained in this Certificate or in any notation made in contemplation of this Certificate shall be deemed to relieve any designer, builder, owner, manufacturer, seller, supplier, repairer, operator or other entity of any warranty express or implied.



WELDING CONSUMABLE CERTIFICATE

Certificate No.: 146391-4723329-002_____

Report No.: 4723329_____

Port of: Hamburg, Germany_____

Date: 13 April 2021_____

THIS IS TO CERTIFY

THAT THE UNDERSIGNED SURVEYOR TO THIS BUREAU DID, AT THE REQUEST OF VDM METALS GMBH, ATTEND THEIR PLANT AT WERDOHL, GERMANY, ON THE 13TH DAY OF APRIL, 2021 AND ON SUBSEQUENT DATES, IN ORDER TO CARRY OUT A PLANT SURVEY OF FACILITIES AND ASSOCIATED QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES AND TO WITNESS AND REPORT ON THE ANNUAL APPROVAL TESTING OF WELDING CONSUMABLES; AND,

THAT THE FACILITY IS CONSIDERED CAPABLE OF PROVIDING AN ACCEPTABLE UNIFORM PRODUCT, AND THAT EACH WELDING CONSUMABLE LISTED BELOW WAS FOUND IN COMPLIANCE WITH THE SPECIFICATION INDICATED AND IS ELIGIBLE TO BE PLACED ON THIS BUREAU'S APPROVED WELDING CONSUMABLES LIST IN THE GAS METAL ARC WELDING INCLUDING MIG/TIG WELDING SECTION:

<u>TRADE NAME</u>	<u>SPECIFICATION</u>	<u>GRADE OR CLASS</u>	<u>SHIELDING GAS</u>	<u>POSITION</u>	<u>CURRENT/ POLARITY</u>	<u>SIZE</u>
VDM ® FM 59	AWS A5.14	ERNiCrMo-13	GTAW: Ar, Ar + max. 3% H ₂	All, HF	dcen	0.8-3.2 mm
VDM ® FM 59	AWS A5.14	ERNiCrMo-13	GMAW: Ar	F, V, HF	dcep	0.8-1.6 mm
VDM ® FM 625	AWS A5.14	ERNiCrMo-3	GTAW: Ar	F, H, V, HF	dcen	0.8-4.0 mm
VDM ® FM 625	AWS A5.14	ERNiCrMo-3	GMAW: Ar, Ar + 30% He	F, V, HF	dcep	0.8-1.6 mm
VDM ® FM 82	AWS A5.14	ERNiCr-3	GTAW: Ar, Ar + max. 3% H ₂	All, HF	dcen	1.0-3.2 mm
VDM ® FM 82	AWS A5.14	ERNiCr-3	GMAW: Ar, Ar + 30% He	F, V, HF	dcep	0.8-1.6 mm




Norbert Ross - SURVEYOR

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