

ABBREVIATIONS

LDX	Lean Duplex
DX	Duplex
EN	European Standard
DSS	Duplex Stainless Steel
SDSS	Super Duplex Stainless Steel
SMAW	Shielded Metal Arc Welding
GMAW	Gas Metal Arc Welding
GTAW	Gas Tungsten Arc Welding
SAW	Submerged Arc Welding
FCAW	Flux core Arc Welding
EBW	Electron Beam Welding
C	current
V	Voltage
S	Welding Speed
η	efficiency
H.I	Heat Input
CC	Constant current
CV	Constant Voltage
Cr eq	Chromium Equivalent
Ni eq	Nickel Equivalent
CSSS	chloride stress corrosion cracking
FN	Ferrite Number
EFN	Extended Ferrite Number
% Ferrite	Percentage Ferrite

PREN	Pitting resistance equivalent number
ISO	International standards organisation
ASME	American Society of Mechanical Engineers
AISI	American Iron and Steel Institute
BPVC	Boiler and Pressure Vessel code
AWS	American Welding Society
ASTM	American society for Testing and Materials
UNS	Unified Numbering system for Metals and alloys
WRC	Welding research council
° C	Degree Centigrade
° F	Degree Fahrenheit
CCT	Continuous cooling transformation
Y.S	Yield Strength
T.S	Tensile strength
CVN	Charpy V-notch
AOD	Argon oxygen decarburisation
VOD	Vacuum oxygen decarburization
SEM	Scanning Electron Microscopy
XRD	X-ray diffractometry
BM	Base Metal
WM	Weld Metal
FZ	Fusion Zone
HAZ	Heat affected Zone
CGHAZ	Coarse grain heat affected zone
WA	Widmanstatten Austenite
fcc	Face Centered Cubic structure

bcc	Body centered cubic structure
Mpa	Mega paskal
J	Joules
CCT	Critical crevice temperature
CPT	Critical pitting temperature
HV	Hardness value
mm	Milli meter
VHN	Vickers Hardness Number
VPN	Vickers Pyramid Number
Psi	Pounds per square inch
α'	Alpha prime
σ	Sigma phase
γ-Fe	Gamma iron (Austenite)
α-Fe	Alpha iron (Ferrite)
MSDS	Material safety data sheet
HIC	Hydrogen induced cracking