

NF-11H × Y-D

NF-11H × Y-DM3

NF-11H × Y-E

*JIS Z 3183 S502-H/*AWS A5.17 F7A4-EH14

*AWS A5.23 F7A6-EG-G

*AWS A5.23 F8A4-EG-G

For Horizontal Welding

APPLICATIONS

NF-11H × Y-D: Horizontal welding for HT490 MPa grade steel used in large scale tank

NF-11H × Y-DM3: Horizontal welding for aluminium-killed low temperature service

NF-11H × Y-E: Horizontal welding for HT550-610 MPa grades

CHARACTERISTICS

NF-11H is a fused flux suitable to horizontal welding for a circumferential joint in a large scale of cylindrical tank.

GUIDELINES FOR USAGE

1. Flux should be dried at 200~350°C for 60 minutes or over before welding.
2. Foreign materials such as rust and oil in weld area should be completely removed to prevent weld crack and pits.
3. Welding current for 1st run should be kept less than 500 amps. and welding speed should be less than 40 cm/min.
4. Recommended welding power source is a DC with drooping characteristic.

WELDING POSITION



SIZE AND PACKAGE OF FLUX AND WIRE

Flux		Wire	
Particle size, mesh	Unit weight, KGS	Recommended dia, mm	Unit weight, KGS
2×X200	25	3.2 or 2.4	25

TYPICAL PROPERTIES OF BUTT WELD METAL (Horizontal MULTI-PASS)

Wire Used	Typical chemical composition, %						Tensile Strength, MPa	Base Metal	Charpy 2 V-notch, J		
	C	Si	Mn	P	S	Mo			-46°C	-20°C	0°C
Y-D	0.08	0.41	1.84	0.021	0.008		590	HT490	69	110	150
Y-DM3	0.07	0.24	1.31	0.015	0.005	0.13	510	YP325	86	150	—
Y-E	0.09	0.29	1.63	0.023	0.005	tr.	640	HT610	60	110	150

TYPICAL GROOVE GEOMETRY AND WELDING CONDITIONS

Wire Dia. mm	Groove Geometry	Pass number	Current A	Voltage V	Speed cm/min	Heat input kJ/cm	Others
3.2		BP	1	390-410	22-24	25	21-24
			2	390-410	22-24	35	15-17
			3	390-410	22-24	30	17-20
			4	390-410	22-24	40-45	11-15
		Arc-air gouging (9.5mmφ carbon rod with 500 A·40 V·95 cm/min)					
		FP	1	440-460	22-24	40	15-17
			2	440-460	22-24	40	15-17
			3	440-460	22-24	40	15-17
			4	440-460	22-24	40-45	13-17

- 1) Horizontal angle of torch: 22.5 deg.
- 2) Wire extension: 25mm
- 3) Burden height of flux: 35-40 mm