

# ML-305

Basicity : 4.6

EN ISO 14174 ES A FB 2B DC

## Characteristics and Applications:

ML-305 is an agglomerated, neutral flux for Electroslag Strip Welding. It is suitable for surfacing with stainless strips of CrNi, CrNiMo types with or without Nb addition. ML-305 exhibits very smooth, tight-rippled weld bead appearance and excellent wetting action. The product features easy slag removal without slag residuals and can be attained in the first or the following layers.

- Corrosion resistant cladding of austenitic overlay
- Components for chemical plants and constructions

## Notes on usage:

1. Flux is required to bake at 300-350°C for 2hr holding time.
2. Re-circulation of flux should be mixed with twice its volume of new flux prior to further use.
3. We recommend using heated hoppers for storage of flux in production.

## Typical chemical composition of weld metal (wt%):

Deposit Type	Strip	Layer	C	Mn	P	S	Si	Cu	Cr	Ni	Mo	Nb	
308L	TBD-309L	1	1st layer: Strip	0.02	1.80	0.010	0.005	0.28	0.04	24.35	12.55	0.09	0.01
			1st layer: Weld metal	0.03	1.33	0.015	0.007	0.49	0.04	19.26	10.91	0.08	0.01
316L	TBD-309L	2	1st layer: Strip	0.02	1.80	0.010	0.005	0.28	0.04	24.35	12.55	0.09	0.01
	TBD-316L		2nd layer: Strip	0.02	2.38	0.020	0.009	0.33	0.05	20.46	13.34	2.63	0.02
			2nd layer: Weld metal	0.02	1.72	0.025	0.009	0.62	0.05	19.44	13.27	2.07	0.02
347	TBD-309L	2	1st layer: Strip	0.02	1.80	0.010	0.005	0.28	0.04	24.35	12.55	0.09	0.01
	TBD-347		2nd layer: Strip	0.02	1.85	0.018	0.007	0.38	0.05	19.56	10.36	0.08	0.58
			2nd layer: Weld metal	0.03	1.41	0.022	0.008	0.66	0.04	19.27	10.73	0.08	0.35
	TBD-309LNb	1	1st layer: Strip	0.02	2.07	0.018	0.007	0.35	0.07	23.48	12.19	0.16	0.87
		1st layer: Weld metal	0.04	1.51	0.02	0.009	0.53	0.06	19.16	10.14	0.12	0.63	

### Remark:

1. Welding parameter : 1200A, 24V, 15cm/min / 35mm stick-out / 150°C interpass temperature  
Strip : 0.5X60mm
2. The chemistry will be influenced by welding parameter, welding equipment and bead thickness etc.

## Size of strip:

Width & Thickness: 30 x 0,5mm, 60 x 0,5mm, 90 x 0,5mm

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