

21.33

Comparable specifications*

EN ISO 14343-A: G Z 21 33 Mn Nb / W Z 21 33 Mn Nb

* There are no national specifications for this alloy, neither ASME IX qualification F-number.

Werkstoff Nr.: ~ 1.4850

Description and applications*

* Illustrative, not-exhaustive list

Fully austenitic stainless steel filler metal characterized by high resistance to carburizing atmospheres and high resistance to temperature-scaling up to 1050°C. Excellent weldability on both AC and DC+.

This grade may be used for:

- high temperature applications;
- welding of heat-resistant steels and cast steels of similar nature;
- joining and overlay weldings of similar alloyed heat resistant steels and steel casts;
- joining and cladding of high heat resistant Cr-Ni steels of the same kind and cast steels in a low sulphurous environment

Weldable base materials*

* Illustrative, not-exhaustive list

UNS N08800 (W.Nr.1.4876 - Alloy 800)
UNS N08810 (W.Nr.1.4958 - Alloy 800H)
UNS N08151 (W.Nr.1.4859)

All-weld metal mech. properties*

* For reference only values

Tensile strength (Rm): $\geq 600 \text{ N/mm}^2$
Elongation: $\geq 25\%$

Yield Strength (Rp_{0.2}): $\geq 380 \text{ N/mm}^2$
Charpy-V Impact (R.T.): $\geq 50 \text{ J}$

Chemical composition*

* For reference only values

C	Mn	Si	S	P	Ni	Cr	Mo	Cu	Nb	Ti	Zr
0.14	4.50	0.10	max	max	32.00	21.30	max	max	1.10	0.15	max
0.17	5.00	0.30	0.010	0.025	33.00	22.00	0.50	0.30	1.30	0.30	0.05

Standard packaging data*

Welding process	Product type	Ø mm (inches)	Packing type	Weight kg (lbs)	Length mm (inches)
GMAW **	filler wire	0.80 - 1.20 (0.030 - 0.047)	spools BS300 / D300	15 (33)	n.a.
GTAW **	filler rod	1.60 - 4.00 (1/16 - 5/32)	cardboard boxes / tubes	5 (11)	1000 (39.4)
SAW **	filler wire	1.60 - 4.00 (1/16 - 5/32)	basket rims B450	25 (55)	n.a.
SMAW **	core wire for electrodes	1.60 - 5.00 (1/16 - 0.197)	wooden boxes	500 - 750 (1100 - 1650)	250 - 450 (10 - 18)

* Other sizes and packing types are available upon request

** GMAW: gas metal arc welding; GTAW: gas tungsten arc welding; SAW: submerged arc welding; SMAW: shielded metal arc welding

Marking

Each filler rod for GTAW welding is durably marked with an identification traceable to the unique product type. Welding filler materials wound on spools or in coils are durably marked on the coil or spool with an identification traceable to the unique product type.

The outside of each unit package is suitably labelled with at minimum the following data: grade, diameter, heat, lot no., classifications.

Customized labels are available upon request.

Lot classification

All our productions fulfil the **Class S3** requirements acc. to EN ISO 14344.