



Industry Uses:

- Helps worn or mis-machined parts
- Nuclear Industry
- Railroad, Aerospace & Hydraulics

(937) 253-5311

www.techmetals.com

TM 109 Engineered Electrolytic Nickel

- Specifications:**
- AMS-2403
 - AMS-2423
 - AMS-2424
 - AMS-QQ-N-290
 - QQ-N-290
 - AMS-2424

An electrolytic nickel deposit of the purest nickel providing a soft, ductile coating of approximately 20 Rockwell C hardness. TM 109 has outstanding corrosion resistance, solderability, magnetic characteristics and resists oxidation at high temperatures. This coating is primarily used in salvage of worn or mis-machined parts and is especially useful on those requiring a heavy build-up of material. Maximum coating thickness of .100". Techmetals currently handles large size and high-production parts with a 5-ton capacity and tanks up to 10-feet in length. TM 109 is ideal when a pure, stress free, machinable and corrosion-resistant deposit is required.

Grinding Recommendations, TM 109

Studies of surface, cylindrical and internal grinding of TM 109 have been made – suggestions are provided in the table shown to the right.

The grinding wheels in each of the instances were diamond-dressed. The grinding fluid utilized was proprietary, watersoluble oil comprising emulsifiers of natural and synthetic origin, animal and mineral oil, germicides and inorganic salts.

One part of the soluble oil and 40 parts water were used to make the emulsion for grinding.

^a For dry grinding use wheel designated 57A46F12VBEP

^b A speed of 30 inches per minute, or somewhat less, produces the best finish

^c The minimum speeds, and somewhat lower, produce the best finish

Items	Surface Grinding	Cylindrical Grinding	Internal Grinding
Grinding wheel			
Designation	57A46H12VBEP ^a	57A80-L5VBE	57A60-J5VBE
Size (inches)	8 x ½ x 1¼	20 x 2 x 5	1 x 7/8 x 3/8
Speed			
Wheel surface, (ft./min.)	5,000	6,000	4,800
Table traverse, (in./min.)	400	–	–
Work, surface, (ft./min.)	–	80	90 to 120 ^c
Traverse, (in./min.)	–	30 to 90 ^b	20 to 60 ^c
Wheel Feed			
Roughing (inches)			
Wheel	.003	–	.005
Cross	.010 – .015	–	–
Roughing & Semi Finishing	–	.001	–
Finishing (inches)			
Wheel	.0005	.00025	.00025
Cross	.030 – .035	–	–