

# PERFOR-BAR

WELDING ROD WITH SINTERIZED TUNGSTEN CARBIDE PARTICLES ON A BRONZE-NICKEL CORE FOR OXYFUEL GAS TORCH APPLICATION.

**APPLICATIONS:** Pefor-Bar, is a welding rod consisting on a special structure so as to achieve filler metal deposits, which are tungsten carbide inserts with a non ferrous core, on cast iron and on copper alloys as well as on steel. The core metal alloy is copper nickel to ensure that the tungsten carbide particles stick onto the part undergoing cladding. This results in excellent torsion resistance which averts that the tungsten carbide starts scaling while drilling and it guarantees the tungsten carbide remains bonded onto the part. This welding rod is used to clad drilling bits in oil drilling equipment and excavation equipment parts, bucket claws, mill stabilizers and, in general, to clad those rotary tools used in drilling operations. This product has excellent abrasion resistance; it is extremely hard and also, it withstands huge impact loads.

**CHARACTERISTICS AND PROCEDURE:** This is a welding rod for hard cladding which consists on a bronze-nickel alloy with tungsten carbide particles. It is used on parts which are submitted to intense abrasion wear. Its tungsten carbide filler metal deposits are easy to apply with an oxyfuel gas torch. The size of the tungsten carbide particles may vary according to the specific needs of a job. Tungsten carbide is one of the hardest materials you can ever get. It is almost as hard as diamond. . This welding rod is applied with an oxyfuel torch and an oxidizing flame. There is no need to use flux since the tungsten carbide particles are easy to apply. However, best results are achieved by first preparing the surface with 11FC, using flux, specially when you are going to apply small mesh PERFOR - BAR. Clean and degrease the surface to be clad for optimal results. Prepare the surface with a thin layer from 11FC (tin-based pre-coating). This welding rod has a composition which is similar to the core metal used to make PERFOR - BAR. There is no need to remove the flux residues. Set the gas torch to a neutral flame. Heat the surface you are going to clad. If you have precoated the part with 11FC (tin-based coating), let this coating melt down first. Point the flame towards the PERFOR - BAR welding rod to let the core metal flow. Let the tungsten carbide fall onto the surface you want to clad. Distribute the particles according to your specific needs. This distribution should be accomplished with the outer part of the flame to avert overheating the carbides. Make sure you do not use the inner flame cone, to avoid overheating.

CARBIDE SIZES (MESH)
1/8" X 1/16" - 3.2MM X 1.6MM
3/16" X 1/8" - 4.8MM X 3.2 M
¼" X 3/16" - 6.4MM X 4.8MM
5/16" X ¼ - 9.5MM X 6.4MM
10/20 MESH