



AMTEC PRO 3055 LOW TEMPERATURE SPRAY POWDER

MACHINABLE-HARD OVERLAY BUILD-UP FINAL COAT

General Characteristics

Amtec PRO 3055 is a special “inert gas atomized” nickel base powder having Chromium, Boron and Silicon elements added for hard wear resistance and also resistance to cavitation. It is a build-up powder to be used over the initial PRO 3000 Bond Coat. It can easily bond to the initial bond coat and designed for build-up where a hard surface is required or desired. The metallurgical structure of this powder makes it the best for hard overlays. It is excellent for build-up on cylindrical surfaces that are subject to abrasion. The particle size distribution in the powder is designed to eliminate excessive fuming during the spraying process. It is a prime powder for building up of worn areas that are subject to severe wear. Amtec PRO 3055 finishes by dry grinding using a tool-post grinder.

Procedure

Follow the operating instructions for the Amtec PRO TORCH exactly for easy and successful results. Do not overheat the part being built up over 500°F, or the powder may crystallize and the process may fail. Use a 500°F Tempel Stick to check your heat input, and if it gets to the above temperature range, let the part rotate in the lathe until it cools, then continue with the build-up. If the initial bond coat has been applied, then the final coat must be done immediately. If the part is left overnight, then re-machining will be necessary, so it is important to finish the project started.

Application

Amtec PRO 3055 is used primarily as a build-up on any type of shafting material except pure copper. It must be applied only after the initial bonding powder has been applied. The low temperature spray process was designed primarily to rebuild worn areas on shafts. Areas that are worn due to loose bearing races, abrasion from packing glands, scars from bearings and bearing seals, or any area that wears from friction, such as crankshafts, camshafts, hydraulic pistons and anti-friction bearings. The amazing thing about the low temperature process is that a worn shaft can be placed in a lathe, prepared, sprayed, machined, and put back in service in less than one-half hour, and the part never gets warmer than 500°F.

Typical Properties

Nominal Chemistry:	Carbon 0.30, Chromium 7.5, Iron 1.5, Boron 1.35, Silicon 4.0, Nickel- Balance.
Hardness: (Rockwell C)	36-38 RC
Deposit Density:	7.6 g/cc
Particle Size:	-120+325 mesh
Melting Temperature:	1850°F
Packaging:	Available in 1 lb. and 5 lb. containers

CONFIDENTIAL INFORMATION

Subject to change without notice