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Information Datasheet

R1-1 White Metal Bearing Alloy

DKL Metals Ltd and Fenix Metals Ltd, working together for a Sustainable Future

Description

DKL Metals R1-1 White Metal is a high performance bearing alloy with the ability to withstand high loads and surface speeds. It is suitable for use in high performance internal combustion engines as well as highly loaded applications in steam engines and mining equipment. R1-1 also meets the requirements of BS 3332:1987 Alloy B.

Chemical Properties

Tin	Balance
Antimony	7-8%
Copper	3-4%
Nickel	0.1-0.5%
Cadmium	0.8-1.2%
Silver	0.08-0.12%

Use of White Metal Bearing Alloys

It is recommended that melting pots are stirred during use to prevent copper crystals forming on the surface of the alloy. Casting should take place within the temperature range of 390-410°C depending on the size of the pour. Avoid overheating of the alloy. Rapid cooling of the alloy will enhance the mechanical properties. Ensure adequate extraction and ventilation is provided at the work area. PPE should be provided for users handling molten metal.

Availability

R1-1 White Metal Bearing Alloy is manufactured in the UK and is available in 8kg ingots, 4kg feeders or 1kg bars. All weights are approximate.

Health & Safety

R1-1 White Metal Bearing Alloy contains **Cadmium**. Avoid overheating the alloy. Use PPE when handling and using this alloy. Read the material safety data sheet and warning label before use.

Sustainability

R1-1 White Metal Bearing Alloy is a fully sustainable product. Bearing run out, turnings and dross from metal pots should be stored in containers provided by **DKL Metals Ltd**. The waste material will then be collected and transported to our parent company, **Fenix Metals Ltd**, for re-processing.

DKL Metals Ltd also supply a range of complementary products to assist your process.

PureTin Available in tinman's sticks, 1kg bars and ingots for tinning baths.

Tin Compound For pre-tinning cast iron bearing shells or similar.

Solder Paint For pre-tinning and sweat soldering. Available with pure Sn or Sn/Pb alloys.

Active Fluxes For fluxing prior to White Metal casting.

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