

# Casting Wheels and Dam blocks used in Copper & Aluminum Continuous Casting Lines

Mipalloy manufactures Casting Wheels used in Copper & Aluminum Continuous Casting processes of SCR (Southwire Continuous Rod), Continuous Properzi, Essex Concast Technology & CONTIROD.

We manufacture Dam Blocks used in Wheel-Belt or Twin-Belt Casting process to manufacture cast bar from molten metal.



**mipalloy**®

Complete Competence in Copper



ISO 9001 : 2008

# Casting Wheels and Dam blocks used in Copper & Aluminum Continuous Casting Lines

Mipalloy manufactures Casting Wheels of size range from 500mm to 3000mm diameter and Dam Blocks in Mipalloy 3ZR, Chromium Zirconium Copper material & Mipalloy 100, Nickel Silicon Chromium Copper material. We source our raw materials from Mitsubishi Materials, Japan.

The properties of Mipalloy 3ZR, Chromium Zirconium Copper, Mipalloy 100, Nickel Silicon Chromium Copper are as following

MIPALLOY GRADE	TYPICAL ALLOY COMPOSITION	CONDITION	UNS	RWMA	HARDNESS ROCKWELL	ELECTRICAL CONDUCTIVITY	TENSILE STRENGTH	ELONGATION % IN 2"	ANNEALING TEMPERATURE °C	DENSITY GMS / CC
Mipalloy 3ZR	Chromium Zirconium Copper Cr 0.50-1.5%, Zr 0.05-2.5%, Rest- Cu	Wrought	C18150	Group A Class 2	70B 83B	75% min	348 517	20 15	525 525	8.96
Mipalloy 100	Nickel Silicon Chromium Copper Ni 1.8-3%, Cr 0.1-0.8%, Fe 0.15%, Si 0.4-0.8%, Rest- Cu	Wrought	C18000	Group A Class 3	90 B 100 B	45 % min	655 758	6 10	550 550	8.96

The following are the advantages of Mipalloy 3ZR Chromium Zirconium Copper & Mipalloy 100 Nickel Silicon Chromium Copper material;

1. Oxygen free alloy material with impurity content less than 2ppm
2. Highest service life for casting wheels & dam blocks.
3. The alloy material exhibits highest level in mechanical properties of hardness, tensile strength, yield strength, ductility & excellent fatigue strength.
4. Exceptional thermal conductivity and high resistance to thermal cracking & softening

We conclude from the above points that Mipalloy 3ZR, Chromium Zirconium Copper & Mipalloy 100, Nickel Silicon Chromium Copper is the recommended material for Casting Wheels & Dam blocks.



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