



Our bearing alloys – Our white metals



Bertrandias, a brand of METACONCEPT Group

Quality for 140 years





## The integration of the Bertrandias activities within METACONCEPT Group

### - That's **the pledge to benefit from:**

- Business continuity of the service
- Flexibility of a family-owned company
- Manufacturing on request
- An unequalled trade knowledge based on an exhaustive bibliography
- High quality products
- Very fast delivery time
- Large available stock
- Professional and dedicated staff

### - That's the **choice of trust** and take advantage of:

- Our registered training center
- An all inclusive service inside our group and within our companies
- Advices and experiences adapted to any uses : bearings, babbiting, security,...

## Have you specified:

- Kind of application?
- The load?
- The bearing dimensions?
- The shaft's rotation speed?

**WE'VE GOT THE SOLUTION!**



A **wide range** adapted to all your applications:

### → STAR® ALLOYS

- Tin based
- Lead based
- Zinc containing

### → ETAMALLOY® PRODUCTS (for the process before lining)

- Fluxes
- Refractory anhydride cement
- Tinning powder and paints
- Accessories for casting

**100 % guaranteed** white metals:

→ PRODUCTS MANUFACTURED with primary metals  
Without any addition of recovered alloys

### → THERMAL PROPERTIES

- Flowability
- Good dilatation factor
- Good conductivity

### → MECHANICAL PROPERTIES

- Hardness
- Elasticity
- Compressive and shear strength
- Resilience
- Impact resistance, friction resistance, corrosion resistance



# Products and Applications



## **STAR® OH - AVIATION - 111**

### **90% tin white metal alloy lead free guaranteed**

High speed gyratory and heavy load capacity machines: connecting rods heads, flat bearings, high-speed engines, high speed diesel engines, reducing agents for turbines, ABB, ALSTOM power approved, etc ... thickness < 5/10th mm.

## **STAR® DIESEL 88 - 112**

### **88% tin white metal alloy lead free guaranteed**

Marine diesel engines (SULZER/MAN approved...), railway traction equipments, electric engines, turbines, reducing agents, high speed alternative machines when loads and tension are heavy.

## **STAR® DIESEL L - 113**

### **83% tin white metal alloy lead free guaranteed**

Diesel engines, electric engines, when the planned metal thickness is more than 6/10th mm, hydraulic turbines load-bearings shafts.

## **STAR® WM80 - 106**

### **80% tin white metal alloy**

Bearings that work with high speed under medium load and every use that needs an alloy with high tin rate in average application.

## **STAR® JA & STAR® T81**

### **High grade tin white metal alloys, lead free guaranteed**

With hardeners elements and grain refiners that meet ALSTOM specifications.

## **STAR® TM - 107**

### **73% tin white metal alloy lead free guaranteed**

Bearings or shaft lines, when working conditions are average, guiding bearings for hydraulic turbines.

## **STAR® MRS - 202**

### **Lead based white metal alloy**

Lead based alloy corresponding to a huge range with many applications and a large casting temperature scale, bearing of big machines, low speeds and heavy loads.

## **STAR® 4 LAMINOIRS - 201**

### **Lead based white metal alloy**

Machines that work under heavy load with repetitive impacts and slow speed : rolling mills, crushers, pebble mills, cements mills machines, etc ...

## **STAR® CAB**

### **Lead based white metal alloy without copper**

Alloy especially dedicated to cables socketing;  
Replaces the STAR® alloys Sn7, Sn5Sb10, Sn5Sb12, Sn5Sb15

## **STAR® SN67.5ZN-301**

### **Zinc based alloys**

For the bearings in contact with sea water like stern shaft bearings.



**NEW**

## **Babbit wires STAR®**

Diameter 1,6 mm and 3,2 mm

Packed in 10 Kg DIN spool

Application: thermal projection / shoopage

→ **89% tin white metal alloys lead free guaranteed**

→ **95% nickel white metal alloys lead free guaranteed**

## **METACONCEPT Group**

- Pure metals and alloys – Filler metals for soldering  
Preforms and laminates – Fluxes – Consumables and equipments for centrifugal casting
- Test center and training organism (tribofinition, centrifugal casting, bearings) in Chaponost or on customer site.
- White metals recycling and recovering



For any further information, scan this QR code with your smartphone.



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