Rare earth alloy tube, bi-metal composite pipe, ceramic composite pipe

Product comparison shows

Rare earth alloy tube

The material is the eighties by my unit and North Jiaotong University jointly developed a wear-resistant alloy materials. Through continuous improvement over the years, this alloy material has been serialized, the plant can meet various working conditions.

1. Powder feeding wear elbow boiler plant, ash slagging tube, after nearly two decades of use, won recognition.
2. The wear-resistant material with a number of other materials can not be universal advantages, such as bi-metallic materials can not produce coal grinding plant,

Milling, ash, slag system some equipment accessories. Such as slag scraper, coal mixer, spiral, etc., can use this material for power plant operation, maintenance and management, a great convenience.

3. Ingredients designed with multi-carbon alloy system to ensure that the material holding the comprehensive performance indicators. This material combined with our resources

Characteristics, using a small amount of multi-alloy body, in the original alloy FeCr, FeMn, Ni, Re, again on the basis of FeSi added FeV, FeNb, Cu, and other alloying elements to ensure product performance.

Grade	Chemical Composition								
	C	Cr	Mn	Mo	Ni	Si	S	P	Re
ZG40CrMnONiRe (JM6a)	0.35 ~ 0.42	1.0 ~ 1.40	1.0 ~ 1.40	0.30 ~ 0.60	0.50 ~ 0.80	0.80 ~ 1.20	≤ 0.4	≤ 0.4	≤ 0.2

4. Mechanical properties using improved detection methods, ensure the stability of the material properties.

Grade	Tensile strength σb Mpa	Impact toughness ak j/cm²	Hardness HRC
ZG40CrMnONiRe (JM6a)	0.35 ~ 0.42	1.0 ~1.40	1.0 ~1.40

5. Wear resistance, high wear-resistant alloy of rare earth material has a strong anti-wear performance, joined the FeV, microstructure FeNb, Cu took place after the material change, microstructure of lath

martensite Belleville body. More fine grains, higher strength, more plasticity, and further passivated metal substrate, so that the wear resistance of the original material has been improved.

6. High temperature, corrosion resistance, abrasion resistance is improved. Ni alloy elements Cr content elements directly determines the temperature performance of the material. The elements Cr, Cu element determines the content of the corrosion resistance of the material, components of these elements. Reasonable, so that the new wear-resistant alloys of rare earth materials also have several properties, such as both have high wear resistance, but also have high corrosion resistance, it can adapt to the harsh working conditions.
7. Advanced technology, stable performance, centrifugal casting, resin sand molding basis, the company introduced the EPC EPC vacuum suction casting new process based on product structure, purpose, use and quantity of tooling, high dimensional accuracy, uniform material structure, stable performance , especially wear-resistant spiral, coal mixers, fork tubes, and export hopper, hemispherical dome joints, such as the cone shaped pieces done fighting the whole cast, uniform wall thickness.
8. Welding performance, can be cut, the implementation of low-carbon steel butt for operation and construction of various workplace environments, and easy to install.
9. Good hardenability properties, due to the wear-resistant alloy material Biaoliruyi under air quenching conditions, internal and external surface hardness of HRC difference of 1 to 2, to ensure that the wear performance.

Disadvantages: The disadvantage is the low rare earth alloy wear-resistant anti-collision capability, transportation, installation process to be handled with care.

Steel - high chromium wear-resistant bimetallic composite pipe

The product uses an ordinary wall seamless steel, high chrome cast steel lined composite made by centrifugal molding process to form. Hot simmer elbow bend the outer wall, the inner layer selection of high-chromium steel, high alloy steel with both wear resistance, but also pressure, have a higher mechanical properties.

1. **Good overall performance.** Wear-resistant composite pipe series is the use of dual-metal composite casting process, ordinary carbon steel pipe tube wall, lined with high-chromium alloy. Both have high wear resistance alloy casting, but also has high mechanical strength and impact resistance, the use of safe and reliable.
2. **High wear resistance.** High chromium cast hard for M7C3 type carbide, with high toughness and high hardness (HV150-180), Rockwell hardness HRC50 or more, and thus good wear resistance.
3. **Strong corrosion resistance, high temperature, high wear resistance.** Because Ka carbide composition and structural characteristics as well as high levels of Cr solid solution matrix has a higher heat resistance, corrosion resistance, high temperature or corrosive environments can show resistance to corrosion. In the wet state, there are corrosive media and particle erosion effect of cross-phase conditions, the use of white cast using 28Cr steel. Under dry working conditions, the choice can be obtained by heat treatment martensitic matrix of high chromium cast steel materials.