

Enameled Flat Aluminum Wire



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Name	Enameled Flat Wire
Conductor	Aluminum
Dimension	Thickness(a): 0.8~10.0mm; Width(b): 2.0-25mm We can produce the Ultra-Flat Large Sizes wire
Thermal Class ($^{\circ}\mathbb{C}$)	120(Class E);180 (Class H);200 (Class C);220 (Class C+);
Insulation thickness	Single, Heavy
Certificate	UL
Standard	IEC,NEMA,GB,JIS
Packing	30kg ~150kg ply-wood spool (250*400 /250*500/ 250*600 / 250*730)
Application	Transformer; motor;generator; modern instrument; welding machine and so on



Enameled flat aluminum wire is commonly used in the electrical industry for various applications such in transformers, as motors, and generators. The dimensions of enameled flat aluminum wire can vary depending on the specific application and requirements of the manufacturer or user.



Two of the most commonly used temperature classes for enameled flat aluminum wire are Class F and Class H.

Class F enameled wire has a temperature rating of 155°C. This means that the wire can operate at a maximum temperature of 155°C without significant degradation of its insulation properties. Class F wire is commonly used in applications that require moderate temperature resistance, such as transformers, motors, and solenoids.

For the enameled flat aluminum wires, commonly used temperature

class F (155°C) and H (180°C).



Class H enameled wire has a higher temperature rating of 180°C. This means that the wire can operate at a maximum temperature of 180°C without significant degradation of its insulation properties. Class H wire is commonly used in applications that require high-temperature resistance, such as motors and generators.

It is important to select the appropriate temperature class of enameled wire for the specific application to ensure reliable operation and longevity of the equipment.

Production process of enameled flat aluminum wire



Enameled flat aluminum wire is a type of wire that is widely used in various electrical and electronic applications. The production process of enameled flat aluminum wire typically involves the following steps:

Wire Drawing: The first step in the production process of enameled flat aluminum wire is wire drawing. In this step, aluminum rods are drawn through a series of dies to reduce their diameter and produce the desired wire size.

Annealing: After wire drawing, the aluminum wire is annealed to make it more ductile and easy to work with. The wire is heated to a high temperature and then allowed to cool slowly, which helps to remove any stresses that may have developed during the wire drawing process.

Cleaning: The aluminum wire is cleaned thoroughly to remove any dirt, grease, or other impurities that may have accumulated on the surface.

Coating: The wire is then coated with a layer of enamel insulation. This is typically done by passing the wire through a bath of molten enamel, which coats the wire evenly.

Curing: Once the wire has been coated with enamel, it is cured to ensure that the insulation adheres properly to the wire surface. This is typically done by passing the wire through a high-temperature oven, which heats the wire and melts the enamel to form a solid coating.

Flattening: The wire is then flattened to produce a flat cross-section. This is typically done using a rolling mill or a specialized flattening machine.

Annealing (again): After flattening, the wire is annealed again to relieve any stresses that may have developed during the flattening process.

Testing: Finally, the enameled flat aluminum wire is tested to ensure that it meets the required electrical and mechanical specifications. This typically involves measuring the wire's resistance, insulation thickness, and

Zhengzhou LP Industry CO.,LTD

Email:office@cnlpzz.com

Tel: 0086-371-65861281

Whatsapp/Mobile:0086-18103865695

Website:www.lp-industry.com;lpenamelwir

e.com

Address:#4 building One Belt One Road

Industry,

Jinshui District, Zhengzhou, China

