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THE EFFECT OF ADHESION ON THE PHYSICAL MECHANICAL PROPERTIES OF C17H35COONA IN DRAWING OF NON-FERROUS METALS

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Abstract: in this article, C17H35COONa in the liquid state is used to increase the surface tension on metal surfaces through its adhesion properties and its yielding effects, as well as the reduction of non-ferrous metals to a diameter of 0.2 mm by increasing viscosity. The mechanical properties of non-ferrous metals without breaking during stretching have been determined.

Key words: sodium stearate, sodium linolin, calcium stearate, boron, non-ferrous metals, copper, aluminum, adhesion, surface tension, viscosity.

Introduction The technology of obtaining a liquid casting component used in loose stretching of copper wire. High molecular fatty acids are used in wet stretching of non-ferrous metals. In order to increase the productivity of the wire drawing process, the drawing speed should be increased as quickly as possible without causing wire breaks or deterioration of the quality of the final drawn wire. In the multi-stage stretching process, the diameter of the wire is gradually reduced from the initial diameter to the final diameter using a series of dies. The wire drawing process can be classified according to the final diameter of the wire: large wire - 1.5-8.0 mm, medium wire - 0.35-1.5 mm and fine wire - 0.01 - 0.50 mm. In addition, the multi-step stretching process can be divided into two types according to the stretching state: dry stretching and wet stretching. Typically, copper wire is produced by a multi-step wet drawing

process. In this process, the reduction ratio from the initial wire to the final wire is more than 90%, and the final stretching speed is very fast[1-2].

Research methodology In particular, the final drawing speed for fine copper wire is more than 1000m/min. Therefore, if the wires break during the process, the drawing process stops. This leads to a significant decrease in productivity.

Table 1

Liquid content used in wet drawing based on high molecular fatty acids,%

The composition of the test liquid casting composite,%	The composition of the test liquid casting composite,%									
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Calcium oleate	**11**	**10**	**12**	**11**	**11**	**17**	**10**	**11**	**20**	**10**
Calcium palmitate	**7**	**8**	**7**	**8**	**7**	**8**	**9**	**7**	**8**	**7**
Calcium stearate	**8**	**6**	**8**	**7**	**9**	**8**	**7**	**8**	**8**	**12**
Calcium linoleic	**6**	**8**	**7**	**8**	**9**	**8**	**11**	**10**	**8**	**9**
Sodium oleate	**8**	**9**	**8**	**9**	**10**	**8**	**9**	**10**	**8**	**10**
Sodium palmitate	**9**	**8**	**9**	**10**	**9**	**8**	**9**	**9**	**8**	**12**
Sodium stearate	**7**	**8**	**10**	**8**	**8**	**8**	**9**	**10**	**8**	**11**
Sodium linoleic	**8**	**9**	**8**	**9**	**9**	**8**	**10**	**10**	**8**	**10**
acid and base solution	**36**	**34**	**32**	**30**	**28**	**27**	**26**	**25**	**24**	**19**

The coating composition of the the test liquid number 5, calcium oleate (11%), calcium palmitate (7%), calcium stearate (9%), calcium linoleic (9%), sodium oleate (10%), sodiumpalmitate (9%), sodium stearate (8%), sodium linoleic (9%) and acid and base solution (28%)

Establishing the production of import-substituting products based on local raw materials, filling our markets with the necessary products, ensuring the full operation of production facilities, saving funds and their rational use, economic growth and is the most important source and factor of structural changes in the economy. Currently, the main raw materials for liquid coating composites are imported from other countries -

oleate, palmitate, stearate and linolin organic complex salts of calcium and sodium ions. This leads to an increase in the real cost of the product. In addition, it negatively affects the proper functioning of the production enterprise. The conclusion. Processing of non-ferrous metals is carried out in three ways. The advantage of the wet method over the thermal method is that the thermal method leads to an increase in the cost of the product when working with metals at temperature, because in thermal storage, in order to heat the metals, the heat must be maintained until the metal melts. will be restored[3]. Conculation: Another method of metal processing is the dry method. The advantage of the wet method over the dry method is that when it is distributed by the wet method, a thin film is formed on the metal surface, and it is much easier to clean the stretched metal surface from the film.

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