

ZIEHOEL AK 2030**WATER-MISCIBLE WIRE DRAWING FLUID****PRODUCT DESCRIPTION**

It is a wire drawing fluid which is formulated with mineral based oils at high concentrations, strong emulsifiers, foam and microorganism preventive chemicals and forms stable emulsions with water.

APPLICATION / USAGE

It is especially developed for medium or fine copper wire drawing operations. It has a high lubricity properties, thus it is used in high speed, multiwire machines. The usage concentrations according to the operations are stated below:

	Wire Diameter	% Concentra.
Thick Wire	Ø 12,8-4,0	10-12
Medium Wire	Ø 1,5-0,4	6-8
Fine Wire	Ø 0,4-0,15	3-5

(Ø: mm)

It is recommended that the system is chemically cleaned with **CLEAN S** or **CLEAN S SUPER** and also mechanically before the preparation of emulsion. Effective chemical and mechanical cleaning will prolong the life of the emulsion.

It is necessary to take precautions in order to maintain the emulsion temperature at 30-40°C range.

The water to be used in the emulsion should have a Total Hardness of 5 °dH and should not contain any microorganisms. Water containing chemical salts may negatively influence the corrosion resistance of the product.

The emulsion should be prepared by adding ZIEHOEL AK 2030 on the water meeting the recommended water specifications and blending slowly, in an emulsion preparation tank if possible. It is recommended to use mechanical mixers for blending process. As unstable emulsions occur as a result, water should never be added on the product during preparation.

Demineralized water is recommended to be added to the system in case that water addition is necessary.

% Concentration, pH and conductivity controls are recommended to be performed daily. % Concentration range may vary according to the wire type, thickness and drawing speed.

ADVANTAGES / BENEFITS

- It has high emulsion stability in case that the emulsion is prepared with water meeting the recommended water specifications.
- It does not stain the material and provides good surface quality.
- It provides the cleanliness of the machines and tools.
- It prevents wear of the machining tools and keeps at minimum levels.
- It provides long service life for the solution due to its resistance to microorganism production.
- It has superior lubricating properties.
- Since its pH value adjusted it does not cause sensitivity or harm on the skin.

STORAGE

Protect from direct sunlight and rain. Store in the original closed drums and in covered areas. Storage temperature must be between (+5)-(+40)°C.

HEALTH AND SAFETY

This product is unlikely to present any significant health or safety hazard when properly used in the recommended application. Used or waste product should not be allowed to contaminate soil or water. Used or waste product should be disposed of in accordance with local regulations. For further guidance on product Health and Safety refer to the appropriate Material Safety Data Sheet.

"The above information is derived from our quality checks. Given values are typical of current production. While future production will conform to our specification, variations in these characteristics may occur. Quality Control Analysis Report for to learn properties of the product that is supplied can give. It does not relieve the purchaser from examining product upon delivery and gives no assurance of the product for any particular purpose. Due to continual product research and development, the information contained herein is subject to change without notification."

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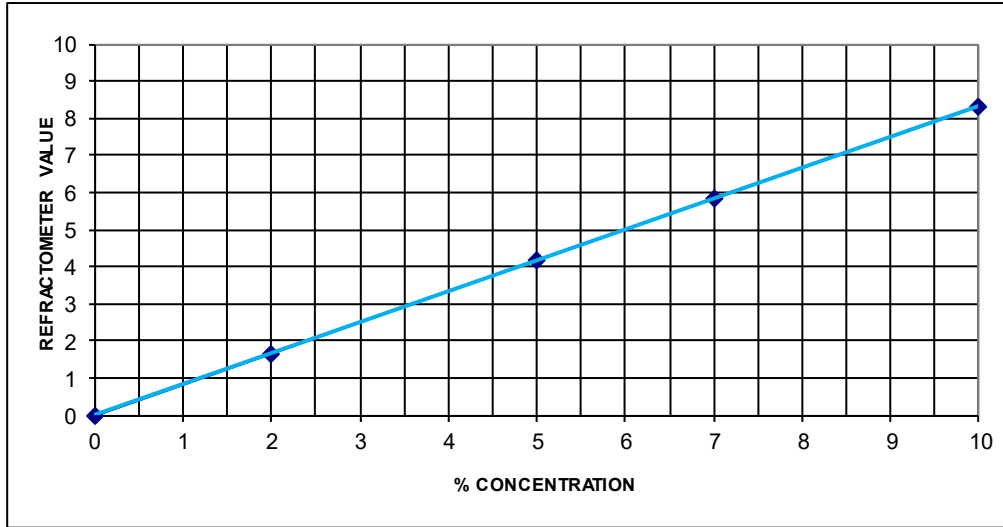
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WATER-MISCIBLE WIRE DRAWING FLUID

TECHNICAL PROPERTIES	TEST VALUES	TEST METHOD
Appearance	Brown, clear	-
Emulsion Appearance (%5)	Milky	-
pH (%5)	9,0	ASTM D 1287
Refractometer Factor	1,2	Hand Refractometer

Concentration Control:

% Concentration	Refractometer Value
2	1,7
5	4,2
7	5,8
10	8,3



The data provided for the % concentration control is prepared according to the data obtained for the freshly prepared emulsion. As the utilization time of the emulsion and the undesired oil/contamination amount in the system increases, deviations from the data stated above should be taken into account.

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