

## PIPETTES FOR ESR AUTOMATIC ZERO

### Intended use:

Single-use pipette for the determination of the erythrocyte sedimentation rate (ESR), following the recommendations of the Westergren method. Manual system for professional laboratory use.

### Product description:

The pipette consists of a graduated tube, a filter that serves as a "0" flush and a plunger. The pipette is designed to be used with vacuum and non-vacuum extraction tubes of 12 or 13 mm diameter, with volumes between 1.5 and 3 ml of blood anticoagulated with citrate (1:4). The pipette is filled by means of the pressure exerted by the plunger, which is inserted into the tube, until the blood reaches zero level.

### Procedure:

1. After blood sampling and also before performing the determination, gently invert the tube at least 12 times to obtain a correct mixing (can also be done by rotary shaker).
2. It is recommended to perform the determination within 4 hours after extraction when the sample is kept at room temperature. If the determination is to be performed more than 4 hours later, the sample should be kept refrigerated until use for no more than 24 hours. In this case, the sample shall be kept at room temperature for 15 minutes before the determination is carried out and the mixing process shall be repeated prior to the determination.
3. Gently remove the stoppers from the tubes (maintaining proper precautions according to laboratory procedure).
4. Insert the pipette into the open tube and slide it until it touches the bottom of the tube. The pipette will automatically fill up to the "0" point (filter zone). Note: If bubbles are observed in the column formed in the pipette, the determination is invalid.
5. Place the pipette and the tube in a suitable rack (in a vertical 90° position and in an area free of vibrations, movements, and not exposed to direct sunlight or heat sources).
6. Take the 60-minute reading of the erythrocyte sedimentation rate in relation to plasma. The value obtained shall be indicated as "X mm in one hour".

**Note:** if the presence of a bubble is observed in the column formed in the pipette, the determination is invalid.

### Limitations on use:

1. At speeds greater than 120 mm/h, we may have reading difficulties as the scale is covered by the sample-carrying tube.
2. The pipette is defined for a type of tubes with dimensions 12 or 13mm. Other tubes may make it difficult to fill the pipette.
3. The volume of the sample should be between 1.5 – 3 mL, lower volumes may cause the pipet to not fill to the "0" point and higher volumes may cause a rebound effect causing the end of the pipette not to lodge at the bottom of the tube.

### Storage:

Recommended storage temperature between 4°C and 35°C. Avoid the direct exposure to the sun.

Stability is guaranteed 60 months from manufacturing, at room temperature.













### Cautions/Care:


1. Before performing the test, make sure that the tube is suitable for the correct filling of the pipette (dimensions and sample volume) and that there is a suitable rack to keep the pipette + tube in an upright position.
2. Do not use expired products (see expiry date on the label).
3. Fill the tubes according to the manufacturer's recommendations (procedure, filled volume).
4. Do not use pipettes or tubes that contain foreign elements or have lost their integrity.
5. During the test, follow the laboratory procedure for the use of biohazardous samples. The use of disposable gloves reduces the risk of infections. Additional handling of needle syringes during collection increases the risk of a needle stick.
6. During the test, avoid the presence of vibrations (eg centrifugal), air currents, sources of heat, direct sunlight.
7. Ensure correct mixing after extraction and before determination. Do not use samples that show signs of microclots. Mixing must be gentle, vigorous shaking can lead to the formation of hemolysis and alteration of the results or rendering the sample useless.

### Disposal:

Apply local legislation on disposal of biohazardous material.

### Symbol glossary:

 REF	Catalogue number	 LOT	Batch code	 i	Consult instructions for use on <a href="http://www.deltalab.es/eifus">www.deltalab.es/eifus</a>	 QTY	Quantity		Storage temperature
 IVD	In vitro Diagnostic		Use-by-date	 UDI	Unique device identifier		Do not re-use		CE marking
	Manufacturer		Keep away from sunlight						

 In case of a serious incident\* related to the product, notify to Deltalab, S.L. as well as the competent authority of the State in which the user is established. \*A "serious incident" is understood as one that entails the death, or serious deterioration of the health of the patient or user or a serious threat to public health.