

# The process of selecting the UPC face mask validated by INTEXTER

Because of the COVID-19 pandemic and the instructions of the health authorities on the compulsory use of face masks, the UPC's Office of the General Manager entrusted [INTEXTER](#) with studying the most appropriate face masks on the market to meet the needs of the University's staff and students. INTEXTER, the Terrassa Institute of Textile Research and Industrial Cooperation, was already intensely involved in the health crisis, advising both the Catalan government on the characteristics that homemade face masks should have and companies and institutions on healthcare textiles. Further information is available on the [COVID-19 and Textiles website](#).

INTEXTER set up a committee of nine members of staff and studied 14 types of face masks that are currently on the market of reusable cloth face masks that meet the [UNE 0065-2020 specification. Reusable hygienic masks for use by adults and children. Material requirements, design, manufacture, marking and use](#), the documents submitted by the manufacturers, their ergonomic properties and comfortableness.

There are many of these types of face masks on the market, but not all of them are certified by the Textile Industry Research Association [AITEK](#), which is the only body recognised by Spain's national accreditation body [ENAC](#) to verify whether they meet the requirements of standard UNE 0065-2020. For this reason, all the face masks that had not been certified by this body were rejected.

The study of the 14 brands of face masks considered the following facts:

- Manufacturer
- Product reference
- Website
- Bacterial filtration efficiency, BFE (%)
- Breathability (Pa/cm<sup>2</sup>)
- Regulations complied with
- Certification body
- Fibre composition (%)
- Type of finish
- Number of washes guaranteed by the manufacturer
- OEKO-TEX 100 certification
- Fabric weight (g/m<sup>2</sup>)
- Place of manufacture

Once the face mask brands that did not have the AITEK certificate of compliance with the UNE 0065-2020 standard were eliminated, six face mask brands were left to be studied. Subsequently, a scoring system that took into account textile and healthcare quality, environmental aspects and cost was developed for each characteristic to assess the suitability of each face mask.

## The model chosen

The model finally chosen to be used at the UPC is the SKUT-0 manufactured by [ARPE](#) in Arenys de Munt (Barcelona).

It is a circular knit, 100% polyester textured fabric with the following properties certified by [AITEX](#).

	UNE 0065-2020 requirements	ARPE - 0 washes	ARPE - 5 washes
Bacterial filtration efficiency, BFE (%)	≥ 90	91.62 ± 7.56	94.98 ± 4.55
Breathability (Pa/cm <sup>2</sup> )	< 60	28.8 ± 1	34.4 ± 1

The manufacturer guarantees that the face mask will resist 20 washes with normal laundry detergent at a temperature of 60°C–90°C (normal washing machine cycle) without losing its properties. Because it is 100% polyester and does not have a chemical finish, the durability of the face mask will in practice easily exceed 50 washes at 60°C.

ARPE is a Catalan textile company that has been committed to the environment and the circular economy for many years. It has certificates [ISO 9001](#), [ISO 14001](#), [Global Recycled Standard](#), [OEKO-TEX Standard 100](#), Class 1.

It came third at the **2019 PSI Sustainability Awards**, in the **social initiative** category. In addition to the PSI (the most important international network of the promotional products industry in Europe), the line of promotional products made by this company was chosen as the **2019 recommended sustainable product**.

The STANDARD 100 by OEKO-TEX® certificate is the world's leading ecolabel for textiles. The certificate assures consumers that textiles have been analysed for substances that may be harmful to health. In order to obtain this certificate, all the products used in the manufacturing process (spinning, oiling, weaving and finishing) must also have the same certificate. Class 1 is a certificate that guarantees that the product is suitable for sensitive skin and that it can be used in items for children up to three years, including items such as underwear, bedding and stuffed toys.