ORALITE® GP 095

Description
ORALITE® GP 095 is a soft, flexible sew-on glass bead microsphere reflective garment tape, designed for application to firefighter garments and flame resistant work wear where arc and heat resistance are required and is suited for use in industrial wash applications. ORALITE® GP 095 exceeds the minimum photometric requirements of EN ISO 20471:2013, ANSI/ISEA 107-2010 (Level 2) and AS/NZS 1906.4:2010 Class R.

The back of the tape is printed with the ORAFOL® logo and product name to provide easy product verification of the highest level of quality and specification compliance.

Product Construction
ORALITE® GP 095 is composed of wide-angle, exposed retroreflective lenses bonded to a 100% aramid fabric backing.

Product Approvals
- EN ISO 20471:2013 Separate Performance
- EN 469:2005
- EN ISO 11611:2015 – Protective clothing for use in welding and allied processes
- EN ISO 11612:2015 – Clothing to protect against heat and flame
- EN ISO 14116:2015 – Clothing to protect against heat and flame. Limited flame spread materials, material assemblies and clothing.
- EN ISO 1149-5:2008 – Electrostatic properties – Part 5: Material performance and design requirements.
- Arc Rated

Colour
ORALITE® GP 095 is available in silver (daytime appearance) with a white reflected colour.

Retroreflectivity
ORALITE® GP 095 complies with the minimum reflectivity requirements of EN ISO 20471:2013 separate performance, ANSI/ISEA 107-2010 and AS/NZS 1906.4:2010 Class R, when tested in accordance with the relevant procedures. Typical coefficients of retroreflection are shown in Table 1.

Arc Resistance
ORALITE® GP 095 when tested in accordance with ASTM F1506 and F1891 complies with the minimum requirements. Additionally, the material has an ATPV (Arc Thermal Performance Value) greater than 15 cal/cm^2 as per ASTM F1959.

Flame Resistance
ORALITE® GP 095 meets the requirements of EN 469:2005 Clause 6.1 and EN ISO 14116:2015 Clause 6.1 Index 3 when tested in accordance with ISO 15025 Method A in new condition, and also after 50 wash cycles according to ISO 6330:2012 Method 6N (60° C) and 25 wash cycles according to ISO 6330:2012 Method 9N (92° C). The tape has the following marking designation in accordance with EN ISO 14116:2015 Clause 8: 3/5H/60; 3/50H/60; 3/25H/92C.

Thermal Resistance
ORALITE® GP 095 exceeds the photometric requirements of EN ISO 20471:2013 after convective heat exposure at 180° C for 5 minutes when new (EN 469:2005 Annex B.3.1) and also exceeds the photometric requirements after 50 wash cycles (according to ISO 6330:2012 Method 6N) and convective heat exposure at 180° C for 5 minutes.

Dry Cleaning
ISO 3175:2010, Method 9.1 – 30 cycles.

Machine Washing

ORALITE® GP 095 will meet the minimum photometric requirements of EN ISO 20471:2013 when attached to a variety of background materials and when washed in accordance with the following:

- ISO 6330:2012 Method 6N 50 washings at 60° C
- ISO 6330:2012 Method 9N 25 washings at 92° C
- ISO 15797:2002 Method 8 50 washings at 75° C
- ISO 15797:2002 Method 2 50 washings at 75° C

Application Instructions

ORALITE® GP 095 has a single layer construction which allows for stitching in any area of the surface. A stitch count of 8 stitches per 2,54 cm is recommended. The stitching should be at least 3 mm from the edge of the garment tape using a flame retardant thread. Please contact ORAFOL for full care and application instructions.

Shelf Life

The product must be used within one year from the shipment date. All rolls including partially used rolls should be stored in original packaging, tightly wound. Store in a clean and dry area, away from direct sunlight. Store at 20° C and 50% relative humidity.

Table 1
Retroreflectivity

Observation Angle	Entrance Angle (β_1, β_2=0)			
	5°	**20°**	**30°**	**40°**
0,20°	500	290	180	65
0,33°	250	200	170	60
1,00°	25	15	12	10
1,50°	10	7	5	4

All values have units of cd/lux/m^2.

IMPORTANT NOTE

All ORAFOL products are subject to careful quality control throughout the entire manufacturing process, and it is ensured that they are of merchantable quality and free from manufacturing defects. The information published is based on our analyses and studies and does not constitute any warranted properties or any agreement as to quality. Due to the diverse possibilities of use of ORAFOL products and the constant development of new applications, the buyer should carefully consider the suitability and performance of the product for the respective purpose; it bears all risks associated with such use. No warranty is given for purposes other than those listed in the Technical Data Sheet or for applications that are not processed in accordance with ORAFOL's processing instructions.

The durability of the end product depends upon a variety of factors, including but not limited to substrate selection and preparation, compliance with the recommended application guidelines, geographical area, exposure conditions and maintenance of the ORAFOL material and of the end product. Product defects caused by the substrate or improper surface preparation do not lie within ORAFOL’s sphere of responsibility.

When using ORAFOL products, the pertinent national regulations are to be observed. ORAFOL recommends that you obtain the current stipulations from your local authority and ensure that the product meets these requirements. Please contact ORAFOL for further information.