



C412 80P

Sew-on tape

Flame resistant m-aramid

Perforated

Domestic wash

Fluorescent Yellow

Fluorescent Orange

Technical Data Sheet

Product Description

Coats Signal C412 80P is a combined performance perforated fluorescent yellow or fluorescent orange reflective tape for heat and flame protective clothing. Combined with retro reflective and fluorescent elements, it helps to maximise the visibility in nighttime, during daytime or low light conditions.

Product Construction

Coats Signal C412 80P is made of high performance glass beads laminated on a durable 100% m-aramid fabric backing. The daytime colour is fluorescent yellow or orange and when illuminated by light the reflected colour is white. The tape is customised with perforation which brings breathability and comfort to the garment.

Areas of Applications

Coats Signal C412 80P is a sewn-on reflective tape for high visibility heat and flame protective clothing where EN ISO 20471, ANSI/ISEA 107, EN 469, EN ISO 11611, EN ISO 11612, EN ISO 14116 and EN ISO 15384 certifications are required. All high visibility flame resistant garments should be made according to proper standards.

Product Certification

Colour and Reflective Performance – EN 20471

Coats Signal C412 80P is certified according to the EN ISO 20471 standard for high-visibility clothing. The fluorescent yellow colour meets both the chromaticity coordinates and min. luminance factor requirements, while the retro reflective performance is well above minimum requirement. The typical reflective performance (RA in cd/lux/m²) according to EN ISO 20471, table 4 is shown below.

Observation angle	Entrance angle	Coats Signal C412 80P	Minimum norm requirement
12'	5°	125 / 75	65

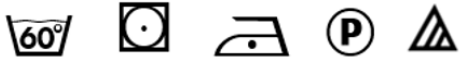
Article Number / Make-up

Art. No.: C412 80P / width: 50.8mm (± 0.8) - roll of 100 m

Art. No.: C412 80P / various widths available

Care Instructions

Domestic Wash



High visibility clothing must not be laundered with other coloured garments as this could cause colours to bleed and damage the luminance of the fluorescent material. The visibility garment would then no longer fulfill requirements according EN ISO 20471.

Physical Performance

Coats Signal C412 80P meets or exceeds in origin the performance as per EN ISO 20471, clause 6.1 as well as the requirements in clause 6.2 after exposure to abrasion, flexing, folding at cold temperature, temperature variation, washing, dry cleaning and influence of rainfall. The following table shows the detail specifications.

Tests	Details
Retro reflective performance in origin	EN ISO 20471:2013+A1:2016, pt. 6.1, table 4 Test method: CIE 54.2
Retro reflective performance after pre-treatment	EN ISO 20471:2013+A1:2016, pt. 6.2, table 6 Test method: CIE 54.2
Colour new, after xenon test and ageing	EN ISO 20471:2013+A1:2016, pt. 5.1, 5.2, 7.5 (EN ISO 6330:2012, method 6N+F) Test method: CIE 15:2004
Abrasion	EN ISO 12947-2:2016, 9 kPa, wool, 5000 cycles
Flexing	EN ISO 7854:1997, method A, 7500 cycles
Folding at cold temperature	ISO 4675:2017, $(-20 \pm 2)^{\circ}\text{C}$
Temperature variation	EN ISO 20471:2013, pt. 7.4.4, 12 hours @ $(+50 \pm 2)^{\circ}\text{C}$ & 20 hours @ $(-30 \pm 2)^{\circ}\text{C}$
Domestic washing 60°C with tumble drying	EN ISO 6330:2021, method 6N+F, 60 cycles
Dry cleaning	EN ISO 3175-2:2010, perchloroethylene, 50 cycles
Influence of rain	EN 20471:2013+A1:2016, annex C

Heat Resistance and Limited Flame Spread Performance

Coats Signal C412 80P meets the heat resistance and limited flame spread requirements according to EN 469, EN ISO 11611, EN ISO 11612, EN ISO 14116 and EN ISO 15384. The following table shows the detail specifications.

Tests	Details
Heat resistance	ISO 17493, 5 min. (180 ± 5) °C
EN 469:2020, clause 6.2.6.4	ISO 17493, 5 min. (260 ± 5) °C
EN ISO 11612:2015, clause 6.2.1	
EN ISO 15384:2020, clause 6.1	
Limited flame spread	ISO 15025, Procedure A (face ignition)
EN 469:2020, clause 6.2.1.1	ISO 15025, Procedure B (bottom edge ignition)
EN ISO 11611:2015	
EN ISO 11612:2015	
EN ISO 14116:2015	
EN ISO 15384:2020, clause 6.3	

Storage and Shelf Life

Coats Signal reflective tapes should be stored in a cool (5°C to 25°C) and dry place (less than 70% relative humidity) and used within one year of date of receipt. The used rolls should be returned to original packaging or suspended from the middle by using a rod.

General Safety Information

Since conditions and applications vary considerably in the use of a product, the customer and/or user should assure herself or himself that the product meets end customer requirements and is suitable for the intended end use. Coats accepts no liability for unsuitable or improper use or application of products. Information provided above is based on current averages and should be taken only as indicative. Coats accepts no liability for the preciseness and correctness of the information provided.

Product information sheets are updated from time to time, please be sure you are referring to the most recent publication. Coats supports customers with advice on individual applications on request; if you have any questions or concerns, please contact us. Coats Signal cannot guarantee an absolute visibility especially in severe weather conditions.

Further Assistance

Please contact your local Coats representative for further assistance.