# ACRYLIC WHITENESS STANDARDS



White plastic standards for office paper and other applications

Categories: PHYSICAL STANDARDS, REFLECTANCE STANDARDS

#### Product Information

Avian Technologies is the sole manufacturer of the line of acrylic fluorescent standards formerly known as CCS (Color Control Systems) standards. These standards can be ordered in a wide range of CIE whiteness\*, and are available in high gloss or diffuse surface treatments.

The fluorescent properties of the FTS tiles make them ideal for applications involving the measurement of fluorescent whitening agents (FWA) common in office papers. In measurement it is always good practice to use similar standards whenever possible. The wide range of available FTS tiles means that we can provide a standard that will closely approximate the fluorescent properties of your paper. We will measure your paper to help you identify the most appropriate FTS standard for your application.

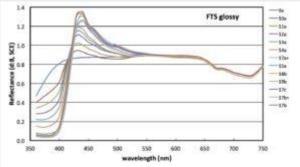
Standards are available individually or as sets. Custom sets are available; contact us to customize a set that meets your requirements.

### CIE Whiteness and TAPPI Brightness (glossy tile\*\* measured SCE)

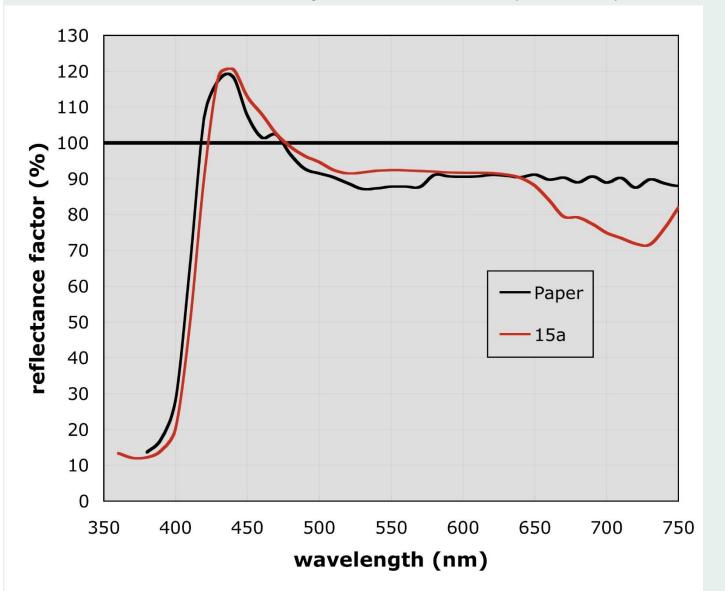
Standard	Wcie	Tcie	TAPPI 525 brightness
9a	84.4	1.02	87.2
10a	93.7	-0.19	89.1
11a	107.9	0.3	93.9
12a	121.6	-0.16	99.7
13a	128.2	-0.5	102.1
14a	133.6	-0.07	103.6
15a	142.4	0.81	109.6
17b+	154.4	1.51	114

<sup>\*\*</sup>Data for matte tiles are nominally very close to glossy measurements

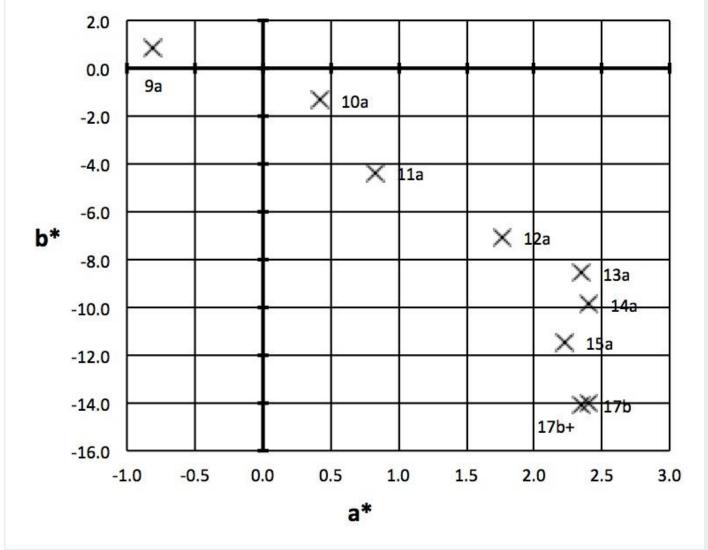
## Spectral and Colorimetric Data



Spectral reflectance factor d:8 SCE (click for full size)



Standard office paper and AT-FTS-15a (click for full size). Measured under illumination approximating the UV content of D65. The plot shows very similar properties, especially in the critical absorption region (350-400nm) and emission region (400-475nm). The 15a is an ideal reference standard to use for qualifying paper with OBAs.



CIELAB a\* b\* (D65, 10° observer)

## Important Notes on Whiteness Measurements

We calculate CIE whiteness and tint as described in "Whiteness Assessment: A Primer Concepts, Determination and Control of Perceived Whiteness." This document, which also serves as a comprehensive primer on whiteness, was provided by Dr. Claudio Puebla of Axiphos GmbH, and is available for download from the Axiphos GmbH site.

(link: http://www.axiphos.com/WhitenessPrimer.pdf)

As of May 2014, we aligned our GretagMacbeth Coloreye 7000A to a traceable whiteness standard measured at NRC Canada. The UV content of out instrument was slightly low, and was increased to match the traceable standard. Therefore as a result of this recalibration our measured whiteness values are higher than previously reported. Our FTS formulations have not changed; if you want to purchase new standards that match your existing FTS standards, use the same part numbers.

### Ordering

AT-FTS-917-g Set of eight whiteness standards, 2" x 3" x 3mm, glossy finish

AT-FTS-917-m Set of eight whiteness standards, 2" x 3" x 3mm, matte finish

AT-FTS-XXa-g Individual plastic whiteness standard, 2" x 3" x 3mm, glossy finish

Specify level (9a-17b)

AT-FTS-XXa-m Individual plastic whiteness standard, 2" x 3" x 3mm, matte finish

Specify level (9a-17b)

AT-FTS-XXholder

Delrin holder with hinged cover to hold and protect AT-FTS-XX standards

Custom products are our specialty!

Contact us for more information.



NEWS

## LC Instru Represents Avian Technologies

Avian Technologies is pleased to welcome our newest representative, LC Instru. If you are interested in purchasing Avian Technologies products in France, give them a call!

Visit our international sales page for more information on purchasing Avian Technologies' products if you are located outside the US.

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