

UK Technical Bulletin

Pilkington **Activ**[™] Blue coated side detection

Introduction

Modifications to the Pilkington **Activ**[™] Blue coating has altered the way in which the various coating detectors commonly used in the industry react to the coated surface. Even so, it is still possible to employ the same instruments to effectively determine which is the coated side of Pilkington **Activ**[™] Blue and also the self-cleaning coating for Pilkington **Activ SunShade**[™] Blue, which is a dual-coated product. This technical bulletin describes how to interpret the information given by various common coating detectors to ensure that Insulating Glass Units (IGUs) are assembled and installed with the coating in the correct position.

Coating detectors

Coating detectors can generally be classified into those that operate based on the conductivity of the coating (low emissivity, or low-e, detectors) and those that operate based on the reflectivity of the coating (Pilkington **Activ**[™] detectors). Additionally, certain instruments use both methods to detect and distinguish between Pilkington **Activ**[™] and a low-e coating. Depending on the type of detector being used, some consideration should be given to how the instrument reacts to the coating in order to orientate the glasses correctly.

Pilkington **Activ**[™] detectors



Figure 1: Examples of Pilkington **Activ**[™] detectors

These instruments – examples of which are shown in Figure 1 - operate based on the difference between reflectivity of the Pilkington **Activ**[™] coating and uncoated glass. As the Pilkington **Activ**[™] Blue coating has a higher reflectance than uncoated float glass, these instruments can be used in the usual way to identify the coated surface.

In the case of Pilkington **Activ SunShade™** Blue, as this is a dual-coated product, these types of detectors will indicate that a coating is present on both surfaces. It is possible to distinguish between the Pilkington **Activ™** Blue and Pilkington **SunShade™** coatings visually as the Pilkington **SunShade™** coating has a distinctly greyish appearance relative to the Pilkington **Activ™** Blue coating.

Alternatively, as the Pilkington **Activ™** Blue coating is slightly conductive, a digital multi-meter or fuse tester can be utilised to check for electrical continuity. Only the Pilkington **Activ™** Blue coating will give a positive reading for continuity. This method can also be employed in-situ once the glass has been installed to check if an IGU has the Pilkington **Activ™** Blue coating on surface one.

Low-e coating detectors



Figure 2: Examples of low-e coating detectors

As the Pilkington **Activ™** Blue coating is slightly conductive, it will also be detected by low-e coating detectors or will read as low-e for dual purpose (low-e and self-clean) detectors. To avoid confusion, visual inspection will give a clear indication if the glass tested is a low-e glass as such products typically have a high light transmittance, whereas Pilkington **Activ™** Blue is noticeably blue in appearance and has a much lower light transmittance.

Once it has been established that the product is Pilkington **Activ™** Blue, these instruments – examples of which are shown in Figure 2 – can also be used to identify on which surface the coating is present. Some models of low-e detectors can differentiate if the coating is present on the side that is in contact with the detector or if it is present on the opposing side of the glass. This test can also be used in-situ to check if an IGU has been assembled and / or installed correctly. If any doubt remains regarding positioning of the Pilkington **Activ™** Blue coating, this can be verified using the digital multi-meter or fuse-tester method described previously. (The Pilkington **Activ™** coating should be situated on surface 1 of the IGU, counting from outside.) Note that, for Pilkington **Activ SunShade™** Blue, only the Pilkington **Activ™** Blue coating will read as a low-e coating.