



## **NSG Group statements on nanomaterials in European building products**

The European Commission definition of “nanomaterial” for legislative and policy purposes is: *a natural, incidental or manufactured material containing particles, in an unbound state or as an aggregate or as an agglomerate and where, for 50% or more of the particles in the number size distribution, one or more external dimensions is in the size range 1nm to 100nm.* (2011/696/EU)<sup>i</sup> Considering this E.C. definition, and to facilitate response to regulatory and customer queries, NSG Group makes the following statements regarding its use of nanotechnology and its manufacture of coated glass building products in Europe.

Firstly, it is important to note that NSG Group does not use nanotechnological production processes to manufacture any uncoated building glass products.

**NSG Group does not use nanotechnology to manufacture uncoated glasses for the architectural business and these products do not contain nanoparticles.**

Some of NSG Group’s architectural flat glass products made in Europe have coatings that are between 1nm and 100nm thick. The thickness of these coatings imparts particular characteristics to the glass, such as optical, thermal or self-cleaning properties. They are applied to the glass using what may be called a “nanotechnological process” to create a layer less than 100nm thick, but they are not defined as nanomaterials as they do not contain nanoparticles. These coatings can be considered as nanostructured materials under the definition in ISO/TS 80004-4<sup>ii</sup> but “*nanostructured materials*” are not defined by the EU as nanomaterials<sup>iii</sup>. These coatings are amorphous or polycrystalline structures adhered to the glass surface and are subject to regulated testing protocols for abrasion resistance and durability. They are an integral part of the product and do not come off the glass during use, and so customers are not exposed to nanoparticles during the lifetime of the products.

**NSG Group uses nanotechnology to manufacture in Europe coated glasses for the architectural business but these products are not nanomaterials and they do not contain nanoparticles.**

A handwritten signature in black ink, appearing to read 'David Ash', with a stylized flourish at the end.

David Ash. NSG Sustainability Manager Western Europe, January 2017

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<sup>i</sup> [https://ec.europa.eu/research/industrial\\_technologies/pdf/policy/commission-recommendation-on-the-definition-of-nanomater-18102011\\_en.pdf](https://ec.europa.eu/research/industrial_technologies/pdf/policy/commission-recommendation-on-the-definition-of-nanomater-18102011_en.pdf)

<sup>ii</sup> ISO/TS 80004-4: 2011 Nanotechnologies – Vocabulary. Part 4: Nanostructured materials.

<sup>iii</sup> SWD(2012)288: Commission staff working paper on “Types and uses of nanomaterials, including safety aspects”, accompanying the Communication from the Commission on the Second Regulatory Review on Nanomaterials (COM(2012) 572).