

PRODUCT DATA SHEET

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Reference PDS/SILICAGEL-SGJ/02



SILICA GEL SGJ (self-indicating, **ORANGE** ~~COLOURLESS~~), 2 – 5 mm BEAD

DESCRIPTION: A narrow pored beaded form of amorphous silica impregnated with an inorganic (iron) indicator compound. The beads gradually change colour from **orange** in the dry (activated) condition to pale **yellow** (almost colourless) when saturated with water.

Main applications are in breather units, desiccators and for general air drying purposes.

TYPICAL PROPERTIES:

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| Moisture content at 145°C | | 3% maximum |
| Equilibrium capacity for water vapour at 25°C and given relative humidity (r.h.) | | |
| | 20% r.h. | > 10% w/w (weight for weight) |
| | 35% r.h. | > 15% w/w |
| | 50% r.h. | > 23% w/w |
| | 80% r.h. | > 33% w/w |
| | Iron content | 0.4% w/w |
| | BET surface area | 600 - 800 m ² /g |
| | Pore volume | 0.35 – 0.45 ml/g |
| | Average pore diameter | 20 – 30 Å |
| | pH (10% aqueous solution) | 1.8 – 2.2 |
| | Bulk density | 700 - 800 g/l |
| <u>Colour change</u> | Orange | 10% w/w adsorption |
| | Pale Orange | 15% w/w adsorption |
| | Pale Yellow | 20% w/w adsorption |
| <u>Chemical Composition</u> | Silica SiO ₂ | approx. 98% w/w |
| | Humidity Indicator | approx. 0.4% w/w |
| <u>Bead Size</u> | Less than 2 mm | 5% maximum |
| | Greater than 5 mm | 5% maximum |
| <u>Toxicity</u> | Non-toxic | |
| <u>Packaging</u> | 150kg steel drums, 25kg drums or kegs, 12½kg polytubs, 4kg, 3kg, 1kg and 500 gram polytubs, 1kg and 500 gram foils | |
| <u>Storage</u> | Packages should be kept closed and in a dry place | |
| <u>Shelf-Life</u> | Shelf-life of between one and three years depending on packing type | |

This material is a non-toxic replacement for the traditional blue/pink self-indicating silica gel. This blue form was reclassified as a toxic material by the EC in 2000 because the colour indicator is a cobalt compound. Regeneration can be carried out at temperatures between 120°C and 150°C.

FOR SAFETY PRECAUTIONS PLEASE CONSULT THE MATERIAL SAFETY DATA SHEET

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