LUXFER
MEL TECHNOLOGIES

DATASHEET • Zirconium Hydroxides for Sorption

Zirconium Hydroxides for Sorbtion Applications

Our Capability

Luxfer MEL Technologies supplies both doped and undoped zirconium hydroxides for a use in a wide range of sorption applications.
(Oxides forms can also be supplied if required).

Materials are solid powders, with tunable properties resulting from our proprietary manufacturing processes. These are carried out at multi-ton scale.

Advantages

EASY SEPARATION FROM REACTION MEDIA
- Sorbent can be easily separated from the adsorbate media.

HIGH SURFACE AREA
- Greater interaction with adsorbates

STRUCTURE
- They have developed (tunable) pore structure.

HIGH CAPACITY
- Large number of active sites and strong interactions with adsorbates

Physical Properties

	Manufacturing Route			
	C1	**C3**	**C4**	**New**
D_{50} (µm)	~1 (A) ~25 (B)	~5	~25 (broad)	~20 (broad)
Porosity (cm^3/g)	>0.2	>0.3	>0.5	>0.6
Surface Area (m^2/g)	>250	>350	>300	>400

Typical Dopants

Surface chemistry can be modified by selecting appropriate dopants, e.g. acidic (SO_4, SiO_2), basic (MgO, La_2O_3, redox (CeO_2).

Applications

Removal of toxic and unwanted species from both gaseous/vapour and liquid phases

Discover more at
www.luxfermeltechnologies.com

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† The information contained within is meant as a guideline only

Certificate No. FM12677

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