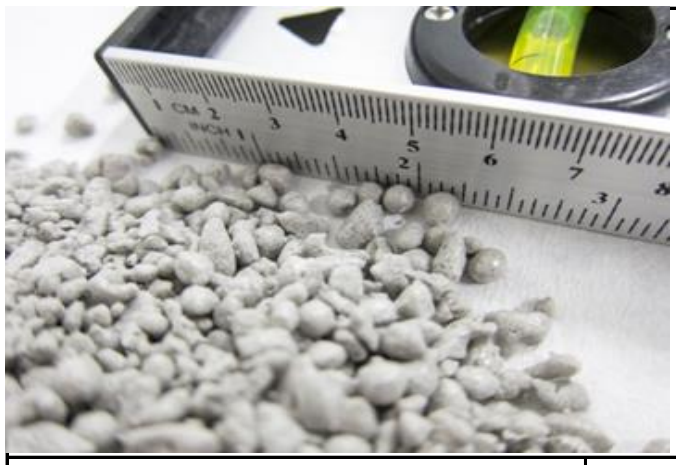

The 3i Loose Fill Material for cavity walls is **insulating, inorganic** and **incombustible** based on a recipe which utilises industrial wastes and by-products. It has lower embodied energy and better insulation properties than the current solutions and since it is a synthetic material it can be fine-tuned according to the application

Name of product	3i Loose Fill Material		
Function of product	Cavity walls insulation		
Form	Granular insulation material		
Raw Material	Industrial wastes and by-products		
Properties			
Property	**Unit**	**Value**	**Test methods/standardisation**
Chemical/physical properties			
Bulk density	kg/m^3	60.6	EN 1097-3
Composition of materials			
Water repellency	mL H_2O passing	185	EN 14316-1
Structures and construction			
Dimensions of product	mm	0-6	EN 13055-1
Mechanical properties			
Compressive strength	N/mm^2	0.27	EN 13055-1
Flexural strength	N/mm^2		
Tensile strength	N/mm^2		
Thermal properties			
Thermal conductivity	W/(m·K)	0.03865	EN 12667
Specific heat capacity	J/(g·K)		
Hygrothermal properties			
Water vapour diffusion resistance factor			
Moisture buffer value	$kg/(m^2 \cdot \%RH)$		
Water vapour permeability	kg/(m·s·Pa)		
Acoustic properties			
Sound absorption coefficient	%		
Sound reduction index	dB		
Fire Safety			
Reaction to fire		incombustible	inorganic
Resistance to fire	Minutes		
Environmental properties			
Embodied energy (% renewable)	MJ/kg	9	
Embodied energy (% renewable)	MJ/FU*	21	*FU= 1m² of insulation material for R=1 m²K/W
GHG emissions	kg CO_2 eq	0.46	per kg
GHG emissions	kg CO_2 eq/FU*	1.07	*FU= 1m² of insulation material for R=1 m²K/W
TVOC (SVOC)	$\mu g/m^3$		
Radon	Bq/m^3		
Photocatalytic capacity			