



Innovative aggregate developed using Edilteco's Politerm® Blu technology

# **Energystore TLA**

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energystore TLA has been developed using the innovative Politerm® Blu technology created by Edilteco®. Politerm® Blu was created in 1981 and is now successfully established in over 40 countries worldwide via Edilteco's franchise network.

In 2018 energystore became the exclusive manufacturer of Politerm® Blu products for the UK and Ireland. Since then we have been able to combine the excellent thermal properties of energystore superbead with Politerm® Blu to create energystore TLA.

# Why is energystore TLA so unique?

MIXTURE with EIA

# The key ingredient in energystore TLA is EIA, a special additive developed by Edilteco®.

When EIA is applied to expanded polystyrene (EPS) beads it ensures the EPS beads mix perfectly with cement and water.

Without the EIA technology, the EPS beads – which are much lighter than cement – float to the top of the mix before it hardens. Adding EIA resolves this problem and a homogeneous mix with a high thermal insulation level and consistent quality is achieved.

#### The ideal solution

The combination of EPS beads and cement creates a lightweight screed that has exceptional thermal, weight and acoustic properties. This makes energystore TLA insulated screeds the ideal solution for many applications.

# **Product applications**

There is a wide range of construction applications that can benefit from energystore TLA's unique properties.

#### **Insulated floor screed**

Installed as a replacement for traditional EPS/PIR (polyisocyanurate) insulation.

#### **Acoustic & light**

energystore TLA's low density means it provides an effective aggregate for weight reduction in intermediate floors. It also has acoustic properties to reduce impact noise.

#### **Insulated roofing**

Installed as a replacement for traditional flat or pitched roof insulation that bitumen can be applied directly onto.

# Product benefits

#### **Quick installation**

One team can install at least 1,000m<sup>2</sup> of energystore TLA per day, allowing for increased productivity on-site.

#### Improved project flexibility

No need to pre-order or store insulation materials weeks in advance. Installers can be booked with a few days' notice.

#### Flexible product solution

energystore TLA comes in many factory-mixed formats to meet customer specifications on thickness, weight and thermal performance.

#### **Quick drying**

Walk on the floor in 24 hours (48 in winter). Complete drying time of one day per 10mm of thickness. insulation products on the market.

#### Low environmental impact

There is no wastage or offcuts to be disposed of. energystore TLA is 85% polystyrene bead, which makes it one of the most environmentally friendly





#### In-life performance

energystore TLA creates a single structure with no gaps in the insulation layer and requires no sealing of joints.



#### **Ultra Low Weight**

Installed density as low as 130 kg / m<sup>3</sup>.



### Less CO2 impact

Floor solutions with up to 80% less cement, reducing CO2 impact.



### **Faster Projects**

Drying time of 1cm per day under normal conditions.



# **Technical data**

energystore TLA is made with expanded virgin graphite EPS beads mixed with EIA additive to form a thermal lightweight aggregate. Once mixed with cement and water the finished product can help achieve compliance with building regulations throughout the UK and Ireland.

#### energystore TLA technical data

energystore TLA is tested against BS EN 16025 with the following declared performance characteristics							
Cement dosage kg/m <sup>3</sup> (absolute technical characteristics)	110	200	250	300	350		
Density after 28 days Kg/m³	130 approx	215 approx	265 approx	315 approx	365 approx		
Thermal conductivity  ♦ W/mK	0.043	0.065	0.067	0.080	0.103		
Compressive strength N/mm <sup>2</sup>	0.528	0.69	0.83	1.61	1.69		
Flexural strength N/mm <sup>2</sup>	0.12	0.37	0.46	0.95	0.59		
Cohesion kPa	-	82.62	82.62	127.17	n.d.		
Hot-sealed membrane rupture N/50mm	-	57.00	n.d.	62.00	21.28		
Cold-sealed membrane rupture N/50mm	-	35.00	n.d.	47.00	13.00		
Elasticity module N/mm <sup>2</sup>	-	235.30	n.d.	489.50	n.d.		
Permeability to water vapour µ	_	10.11	11.50	12.00	21.04		
Shrinkage (NBN) mm/m	-	0.427	n.d.	0.35	0.270		
Specific heat kj/kgK	1.40	1.40	1.40	1.40	1.40		
Impact sound reduction ØL at 500 Hz	n.d.	n.d.	14db thick 5cm	21.5db with mat	n.d.		
Impact sound pressure level	n.d	n.d.	61db thick 11cm	n.d.	n.d.		
Fire reactivity class	A2 UNI EN 13501-1						
Smoke production class	s1 UNI EN 13501-1						
Observation of drops or inflamed particles	dO UNI EN 13501-1						

### **Product accreditation**

Testing of the energystore TLA is done in accordance with BS EN 16025 'Thermal and/or sound insulating products in building construction. Bound EPS ballastings'.

All energystore products are manufactured in ISO 9001, ISO 14001 and OHSAS 18001 accredited manufacturing facilities.



#### energystore TLA U-Values

TLA screed thickness	0.20	P/A ratio 0.40 0.60 0.8			
150mm	0.15	0.18	0.20	0.21	
175mm	0.13	0.16	0.18	0.19	
200mm	0.12	0.15	0.16	0.17	
225mm	0.11	0.14	0.15	0.15	
250mm	0.11	0.13	0.14	0.14	
275mm	0.10	0.12	0.13	0.13	

The above figures are calculated in accordance with BS 6946 and assume 300mm wall thickness, no edge insulation, 50mm finishing screed and a 100mm concrete subfloor.



# Need to get in touch?

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### Need to get in touch with us?

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