

FILLING APPLICATIONS

ArmaPET® Shape

ArmaPET Shape as a substitution filler in precast concrete structures allows for lighter, more sustainable syntactic solutions at reduced installed cost.

- // Enhances lightweight construction
- // Provides secured stability during the mixing process
- // Shows excellent resistance to chemicals, oil and frost attack
- // Allows for easy implementation in existing production processes
- // 100% recycled material supports industry environmental and sustainability directives













ARMAPET SHAPE

Blended as a filler in concrete, polymeric concrete or syntactic foam composites, ArmaPET Shape can enhance the **lighter weight** of the solution, positively influence the **total cost of ownership** and the **sustainability** of precast concrete elements.

Cement and concrete are prevailing materials for building and construction. Adding ArmaPET Shape as a substitution filler in the mix offers superior advantages over conventional materials and provides a highly innovative and sustainable product solution.

SUSTAINABILITY

After water, concrete is the second most widely used material on the planet. The manufacture of concrete generates about 4.5 per cent of the world's human-induced carbon dioxide emissions. Integrating ArmaPET Shape filler as a component helps to reduce this carbon footprint.

// improves the sustainability of concrete structures

LIGHTWEIGHT

The use of ArmaPET Shape as a substitution filler in the mix of concrete and cement provides significant weight reduction compared to conventional solutions.

The reduction of dead loads allows for easier and more fuel-economic transportation and labour-efficient handling on site. ArmaPET Shape stands for an innovative cost-effective and sustainable solution for precast concrete elements, providing:

- // excellent strength-to-weight ratio
- // significant weight reduction
- // easier and more fuel-economic transport
- // more economic and labour-efficient handling on site



		ArmaPET Shape F160/6.5	ArmaPET Shape F160/4
Bulk density 1)	g/l	160	160
	oz/gal	26	26
Bead size	mm	6.5	4.0
	inch	0.26	0.16

¹⁾ Further densities available on a project basis. Values are nominal and vary depending on the process.



APPLICATIONS

ArmaPET Shape, used as a filler material, presents a highperformance alternative to conventional concrete and syntactic foam solutions and provides superior compression strength and temperature resistance.

ArmaPET Shape supports the construction of stronger, more flexible, lighter and more sustainable concrete structures, from sidewalks and street barriers, to precast facade cladding, manholes or drainage pipes. Mixed with a suitable binder, ArmaPET Shape can be easily poured and shaped into synthetic foam composites, such as for low weight buoyancy applications.

FROM THROW-AWAY TO LASTING VALUE

Armacell has developed a patented process technology enabling the production of PET foam based on recycled beverage bottles. We convert recycled PET bottles into long-lifetime, high-value particle foams. This is our contribution to a circular economy, based on the principle of 'reduce, reuse and recycle'.

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ABOUT ARMACELL

As the inventors of flexible foam for equipment insulation and a leading provider of engineered foams, Armacell develops innovative and safe thermal, acoustic and mechanical solutions that create sustainable value for its customers. Armacell's products significantly contribute to global energy efficiency making a difference around the world every day. With more than 3,200 employees and 25 production plants in 17 countries, the company operates two main businesses, Advanced Insulation and Engineered Foams. Armacell focuses on insulation materials for technical equipment, high-performance foams for high-tech and lightweight applications and next generation aerogel blanket technology.

For more company information, please visit: www.armacell.com

