

DESIGNED FOR A GREENER TOMORROW

ArmaShape Filler

Particle foam made from 100% recycled PET. Beads are utilised as fillers, presenting a high performance alternative to conventional materials and supplying superior compression strength and temperature resistance.

www.armacell-core-foams.com



 **armacell**[®]
ArmaShape

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Blended as a filler to concrete, polymeric concrete or synthetic foam composites, ArmaShape can enhance the lighter weight of the solution and positively influence the cost of the composite structure.



Cement and concrete are important materials for building and construction purposes. Adding ArmaShape as a filler substitution generates a better strength to weight ratio, allowing for improved lightweight construction and positively impacting the sustainability of the solution.

PRIMARY BENEFITS

Superior to conventional concrete solutions, the use of ArmaShape provides to following advantages:

- // Enhances lightweight construction
- // Provides process stability during the mixing process (no crushing nor chipping)
- // Allows for easy implementation to existing production process
- // Shows good resistance to chemicals, oil and frost attack
- // Improves concrete sustainability by reducing its carbon footprint
- // Made from 100% recycled PET

APPLICATION

ArmaShape is utilised to build stronger, more flexible, lighter and more sustainable concrete structures, from sidewalks and street barriers, to precast concrete facade cladding and manholes. Mixed with a suitable binder, ArmaShape can be easily poured and shaped, including low weight buoyance applications.

PRODUCT RANGE

ArmaShape, as a filler material, can dramatically improve the strength to weight ratio of the final solution.

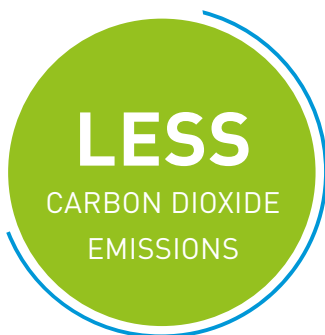
		ArmaShape B/160	ArmaShape B/220
Bulk density	kg/m ³	160	220
	lb/ft ³	10.0	13.7
Bead size	mm	6.5	3.0
	inch	0.26	0.12
Expanded bulk density ¹¹	kg/m ³	130	95
	lb/ft ³	8.1	5.9

All values are nominal.

¹¹Reference value: at 160 °C / 30 minutes. Varies depending on process.

ENHANCING LIGHTWEIGHT CONSTRUCTION

The utilisation of ArmaShape as a substitution filler in the mix allows for significant weight reduction over conventional solutions, positively effecting material handling and transportation. The reduction of dead loads allows for easier and more fuel-economic shipping more economic and labour-efficient handling on-site. ArmaShape can therefore reduce the total cost of ownership and offers an innovative solution not only for precast concrete elements but also for many other applications.



REDUCING CO₂ EMISSION LEVELS

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

FROM THROW AWAY TO LASTING VALUE

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



All data and technical information are based on results achieved under the specific conditions defined according to the testing standards referenced. It is the customer's responsibility to verify if the product is suitable for the intended application. The responsibility for professional and correct installation and compliance with relevant building regulations lies with the customer. Armacell takes every precaution to ensure the accuracy of the data provided in this document and all statements, technical information and recommendations contained within are believed to be correct at the time of publication. By ordering/receiving product you accept the **Armacell General Terms and Conditions of Sale** applicable in the region. Please request a copy if you have not received these.

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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 3,100 employees and 24 production plants in 16 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 information, please visit: www.armacell.com

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