ENGINEERED SYNTACTIC SYSTEMS

www.esyntactic.com

SF - 38

Microsphere Syntactic Void Filler Kit

Technical Data Sheet

Highlights

- Operational Depth Range (Surface - 1 200 Meters)
- Lowest Density Available in the Entire Industry
- High Compressive Strength
- Cures at Room Temperature
- Simple Shipyard-Based Install

Proven Performance

SF - 38 is a high performance syntactic kit designed to meet the needs of subsea void filling applications. This easily cast, three-part system cures at room temperature to form a solid syntactic material. The cured material provides an average of 26 lbs of buoyancy per ft³ and will withstand repeated ocean excursions to depths of 1 200 meters.

SF - 38 kits are made up of the following three components:

Part A: Base Epoxy Resin
A low viscosity epoxy resin provides ease in mixing and high compressive strength for performance in use.

Part B: Curing Agent
A low viscosity reactive polyamide curing agent that cures at low to moderate temperatures with a workable pot-life and exotherm.

Part C: Hollow Glass Spheres
Free-flowing hollow spheres that are the key to the syntactic materials subsea performance. The bubbles provide the low density and hydrostatic performance necessary for the foam system.

Product Installation

This moderate viscosity system is installed by mixing together the two resin components followed by the glass bubble filler. Once the mixture is uniform, it may be pour into any free-flood cavity or void. The initial cure will occur over a twenty-four hour period at ambient temperatures. At this point the solid, lightweight article is ready for any secondary operation such as machining, finishing or painting. Full cure will take place after 7 - 10 days.

Product Storage

Store SF - 38 components in a dry area. Storage temperatures should be between 45°F - 100°F. Do not allow the resins to freeze or the glass filler to absorb moisture. Always close the containers after use.

Product Safety

Do not use or handle this product until the Material Safety Data Sheet and Product Mixing Guide have been read and understood.

Typical Properties

Properties provided below are typical for the cast form.

Color	Density	Compressive Strength	Compressive Modulus	Weight Gain	Hydrostatic Crush	Shelf Life
	lb/ft³ (g/cc)	psi (MPa)	ksi (GPa)	24 hrs @ depth	psi (Bar)	
White/ Tan	38 (.61)	4 200 (29.0)	190 (1.31)	2% Max	5 300 (365.4)	2 years