

ECCOFLOAT® DS-38

High Performance Syntactic Foam

Eccofloat DS-38

Is an ultra high performance syntactic foam comprised of tiny hydro-space quality hollow glass microspheres in a rigid resin matrix. The material is homogeneous in that pieces cut from a block will have the same properties as the original block.

Usage

The primary use for Eccofloat® DS-38 is as a buoyancy material. Due to its strength, however, it should also be considered for structural and acoustic applications.

Forms Available

The standard commercial form is molded blocks 0.5 cubic feet (0.014 cu. m.) in volume. Standard dimensions are 4"x 12"x 18" (10.2 cm x 30.5 cm x 45.7 cm). Larger shapes can be made by adhesive bonding or mechanical attachment of these blocks. The material is readily machined with conventional tools. The cut surfaces do not require any preparation before use.

Determination of Use Depth

All syntactic buoyancy materials absorb some water when subjected to hydrostatic pressure. The amount of water absorption depends on the service depth, the time at depth, and the surface area-to-volume ratio for the foam package. When DS-38 foam is used in non-critical applications, e.g. unmanned subsea buoyancy, the service pressure rating is 16,870 psi (1163 bar). This corresponds to a depth of 38,000 feet (11,500 m).

Typical Properties	
Density, lb/ft ³ (g/cc)	36.0 – 38.0 (0.576 – 0.641)
Color	Tan
Service Depth, ft (Meters) UNMANNED Applications	38,000 (11,500)
Hydrostatic Crush Depth, ft (Meters)	45,000 (13,700)
Weight gain % 16,870 psi (1163 bar) 24 hrs	3.0% max.
Uniaxial Compressive Strength, psi (kg/cm ²)	16,400 (1150)
Uniaxial Compressive Modulus, psi (kg/cm ²)	431,000 (30,300)
Bulk Modulus, psi (kg/cm ²)	429,000 (30,160)

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Notes

- 1) Eccofloat® materials are designed and tested for service in ordinary tap water or seawater and may not be compatible with other liquids. It is the sole responsibility of the user to test and verify performance and compatibility of the materials system.



TRELLEBORG

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