



Eccofloat®

# Syntactic foams

**Trelleborg Applied Technologies manufactures a range of high performance, low density syntactic foam for deep sea buoyancy applications.**

These composite foams provide ultra low densities by selecting only the highest specification hollow glass microspheres, called Eccospheres®, and combining them within a rigid, high strength resin system. The syntactic foam is typically cast into blocks and then is used to prepare large buoyancy modules that can be readily shaped to conform to hull contours and outfitted for installation in the forward and aft free-flood areas of submarines.

Oceanographers also depend on syntactic foams to suspend instrumentation in deep ocean studies. For these applications, the syntactic foam is used in either block form or custom molded shapes for installation in manned and unmanned submersibles such as the legendary Alvin and Jason vehicles that were used to discover and explore the Titanic.

**Trelleborg Applied Technologies produces various grades of syntactic foams, called Eccofloat®, to meet our customers broad range of requirements.**

**TG Grade** syntactic foams are lightweight and economical for building manned and remote operating vehicles. The foams are also used to manufacture mine neutralization systems because of their zero magnetic and sea-water comparable acoustic signatures.



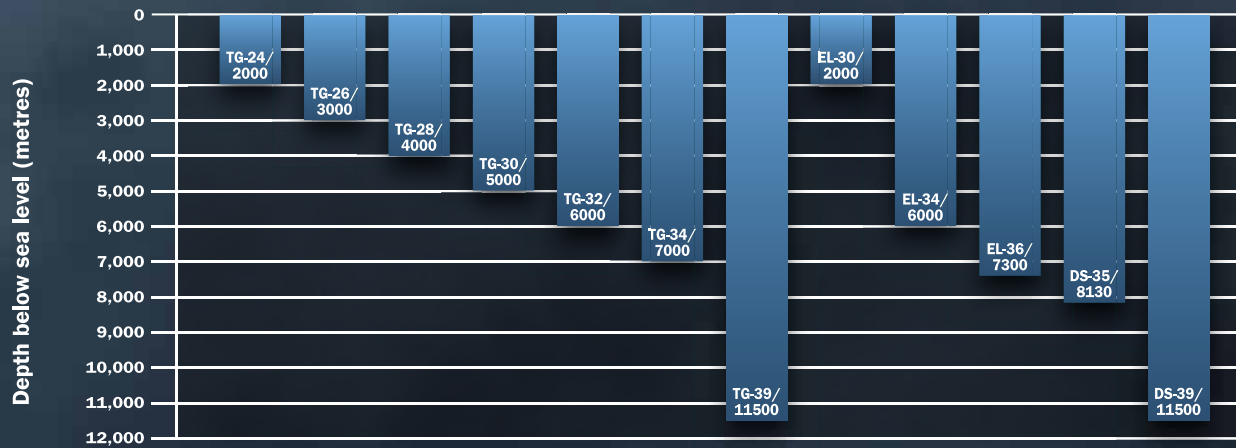
Applications include hydroplanes, rudders, trim adjustment modules for submarines and specialized applications such as acoustic windows due to the material profile and ability to significantly improve sonar functions.

**EL Grade** epoxy syntactic foams are the material of choice for manufacturing manned and unmanned submersibles because of their density range and ability to withstand exposure to diesel fuels and hydraulic fluids.

**DS Grade** syntactic foams combine lightweight glass Eccospheres® with multifunctional epoxy resin to produce ultra-high strength-to-weight materials for high-performance, deep sea applications including manned and unmanned submersibles.

# Eccofloat® Syntactic Foam

ROV/AUV/HOV and Oceanic Applications



ECCOFLOAT® PRODUCT	SERVICE DEPTH		DENSITY		SERVICE PRESSURE
	FSW	MSW	lbs/ft <sup>3</sup>	kg/m <sup>3</sup>	psi
TG-24/2000	6,560	2,000	24	385	3,000
TG-26/3000	9,843	3,000	26	416	4,444
TG-28/4000	11,811	4,000	28	448	5,846
TG-30/5000	16,430	5,000	30	481	7,307
TG-32/6000	19,716	6,000	32	513	8,768
TG-34/7000	22,900	7,000	34	544	10,164
TG-39/11500	38,000	11,500	39	639	16,872
EL-30/2000	6,750	2,000	30	480	3,000
EL-34/6000	20,000	6,000	34	544	9,000
EL-36/7300	24,000	7,300	36	576	11,000
DS-35/8130	26,700	8,130	35	560	11,888
DS-39/11500	38,000	11,500	39	624	16,872

## Eccofloat® Product Sizes

Eccofloat® TG and EL Grades are available in the following dimensions:

6 x 12 x 12 in (152.4 x 304.8 x 304.8 mm)

6 x 12 x 24 in (152.4 x 304.8 x 609.6 mm)

6 x 19.5 x 29.5 in (150 x 500 x 750 mm)

Eccofloat® DS Grade is available in the following dimensions:

4 x 12 x 18 in (101.6 x 304.8 x 457.2 mm)

## Certifications

Trelleborg Applied Technologies is ISO 9001 certified.

## Contact Us

Trelleborg's Applied Technologies division is an industry expert in delivering innovative and reliable solutions that maximize performance for our customers. Our vast range of specialized, customizable materials ensure peace of mind at every stage of your project. With reliable and efficient project management and manufacturing we endeavor to take performance to new levels by achieving your goals safely, on time and within scope.

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