

# Product Specification

## CES Surface Media (190/310)



C. E. Shepherd Company



CES Surface Media

CES Surface Media is constructed from PVC sheets designed for biological water treatment in municipal and industrial waste water treatment applications. The media is designed for expansive surface area coupled with increased numbers of mixing points to greatly enhance performance and efficiency. The modules are available in 3 configurations of different flute sizes for a wide range of applications.

The PVC sheets comprising the Surface Media modules are thermoformed into rigid structures that are self-extinguishing, UV protected and impervious to rot, fungi, bacteria and chemical compounds typically found in wastewater streams.

### Applicable Commercial Standards

Property	Test Method	Typical Values
Specific Gravity	ASTM-D792	1.41 ± 0.04
Tensile Strength (psi)	ASTM-D638	5500 min
Tensile Modulus (psi)	ASTM-D638	3.5 x 10 <sup>5</sup> min
Flexural Strength (psi)	ASTM-D790	10,000 min
Flexural Modulus	ASTM-D790	3.5 x 10 <sup>5</sup> min
Heat Distortion Temperature (°F)	ASTM-D648	162 min
Flammability 1	UL94 Vertical Burning	94V-0
Flammability 2	UL94 Horizontal Burning	94H-B
Flame Spread	ASTM-E84	25 or less

ASTM methods shown above are based on the Annual Book 1999 and have been modified to suit practical conditions.

For dimensions and/or physical properties different from those listed above or special requirements including weatherability, flammability, etc., contact CES for agreement on the specifications.

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### Nominal Product Dimensions

Description	Units	Value (190/310)
Flute Height	Inches	.75/1.20
Flute Width	Inches	1.7/3.0
Flute Corrugation Angle	Degrees	30/30
Surface Area	FT <sup>2</sup> /FT <sup>3</sup>	48/31
Module Depth	Inches	12,24/12, 24
Module Width	Inches	12/12
Module Length (max)	Inches	144/144
Mixing Points	Each	720/180
Void Ratio	Percent	95/95
Sheet Thickness – Before Forming	Mils	14.0/19.0
Sheet Thickness – After Forming	Mils	10.0/15.0

Custom module sizes and thickness can be tailored to customer specification. Contact CE Shepherd Co for details.

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