



**LOW DENSITY CELLULAR / FOAM CONCRETE FOR
GEOTECHNICAL APPLICATIONS**

COEFFICIENT OF PERMEABILITY*	<u>CATEGORY II</u>	<u>CATEGORY IV</u>
MAXIMUM CAST DENSITY, PCF	30	42
COEFFICIENT OF PERMEABILITY, k, cm/sec		
@ EFFECTIVE CONFINING STRESS, 2.5 PSI	4.7 x 10 ⁻⁵	1.5 x 10 ⁻⁶
@ EFFECTIVE CONFINING STRESS, 18 PSI	1.9 X 10 ⁻⁵	5.4 X 10 ⁻⁷

Ref: U.S. ARMY CORPS OF ENGINEERS, EDM, 1110-2-1906 AND ASTM D2434

WATER ABSORPTION*	<u>CATEGORY II</u>	<u>CATEGORY III</u>	<u>CATEGORY IV</u>
MAXIMUM CAST DENSITY, PCF	30	36	42
% WATER ABSORPTION AFTER 120 DAYS MAXIMUM	20	16	14

**LONG TERM TOTAL IMMERSION AS PERCENT OF CAST DENSITY Ref: ASTM C796*

SHEAR MODULUS, G YOUNG'S MODULUS, E	<u>CATEGORY II</u>	<u>CATEGORY III</u>
MAXIMUM CAST DENSITY, PCF	30	36
SHEAR MODULUS, G, PSI (1)	27,670	41,800
YOUNG'S MODULUS, E, PSI (2)	67,500	101,990

(1)ASTM D 4015 AT CONFINING STRESS OF 3 PSI

(2) YOUNGS MODULUS CALCULATED ON THE BASIS OF A POISSON'S RATIO: $\nu = 0.22$ and $E = 2G(1 + \nu)$

RESISTANCE TO RAPID FREEZING AND THAWING *

DENSITY	NUMBER OF FREEZE-THAW CYCLES	RELATIVE "E" PERCENT AT CAST	
		<u>CATEGORY II</u> 30 PCF	<u>CATEGORY IV</u> 40 PCF
	30	98	98
	80	90	95
	120	86	90
	330	70	79

Ref: ASTM C 666