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Unit 5 - Week 4

Course outline

How to access the portal

Week 1

Week 2

Week 3

Week 4

- Lecture 16 : Density, Water Absorption and Compressive Properties tests of Geofoam (unit? unit=32&lesson=33)
- Lecture 17 : Compressive Properties of Geofoam (unit? unit=32&lesson=34)
- Lecture 18 : Compressive and Tensile Properties of Geofoam (unit? unit=32&lesson=35)

Week 4, Assignment 4

The due date for submitting this assignment has passed. **Due on 2019-08-28, 23:59 IST.**
As per our records you have not submitted this assignment.

1) What is the size of test specimen used to determine density of geofoam? **1 point**

- 50 mm × 50 mm × 50 mm
- 100 mm × 100 mm × 100 mm
- 150 mm × 150 mm × 150 mm
- 200 mm × 200 mm × 200 mm

No, the answer is incorrect.
Score: 0

Accepted Answers:
50 mm × 50 mm × 50 mm

2) If dry weight of the sample of geofoam is 1.875×10^{-3} kg. Considering the standard size of **1 point** test specimen, what is the density of geofoam?

- 30 kg/m³
- 25 kg/m³
- 20 kg/m³
- 15 kg/m³

No, the answer is incorrect.
Score: 0

Accepted Answers:
15 kg/m³

3) What is the size of specimen used to determine water absorption capacity of geofoam material? **1 point**

- 50 mm × 50 mm × 12.7 mm

● Lecture 19 :
Tensile and
Shear
Properties of
Geofoam (unit?
unit=32&lesson=36)

● Lecture 20 :
Shear and
Flexural
Properties of
Geofoam (unit?
unit=32&lesson=37)

● Lecture 21 :
Flexural
Properties and
Flammability
Test of Geofoam
(unit?
unit=32&lesson=38)

○ Download
Videos (unit?
unit=32&lesson=39)

○ Quiz : Week 4,
Assignment 4
(assessment?
name=46)

○ Week 4,
Assignment 4
Solution (unit?
unit=32&lesson=51)

○ Weekly
Feedback (unit?
unit=32&lesson=40)

- 75 mm × 75 mm × 12.7 mm
- 100 mm × 100 mm × 12.7 mm
- 125 mm × 125 mm × 12.75 mm

No, the answer is incorrect.
Score: 0

Accepted Answers:
75 mm × 75 mm × 12.7 mm

4) The initial dry weight of geofoam sample was 1.023 g. The sample was completely immersed **1 point**
in water for 24 hours, the wet weight of geofoam was observed to be 1.063 g. What is the water
absorption capacity (%) of geofoam material?

- 2.421
- 5.230
- 3.910
- 8.793

No, the answer is incorrect.
Score: 0

Accepted Answers:
3.910

5) What is the size of specimen of proposed unconfined compression test (PUCT) on EPS **1 point**
geofoam?

- Diameter= 50 mm; Height= 100 mm
- Diameter= 75 mm; Height= 150 mm
- Diameter= 100 mm; Height= 175 mm
- Diameter= 150 mm; Height= 200 mm

No, the answer is incorrect.
Score: 0

Accepted Answers:
Diameter= 75 mm; Height= 150 mm

6) Which ASTM standard is used to determine tensile properties of geofoam? **1 point**

- ASTM D6241
- ASTM D1623
- ASTM D4884
- ASTM D1388

No, the answer is incorrect.
Score: 0

Accepted Answers:
ASTM D1623

7) In shear strength test of geofoam, the maximum load at failure was observed to be 1255N, **1 point**
what will be the shear strength of the sample?

- 139.27kPa
- 121.57 kPa
- 94.4kPa
- 83.66 kPa

No, the answer is incorrect.
Score: 0

Accepted Answers:
83.66 kPa

8) In the flexural strength determination test on geofoam, the maximum load at failure was observed to be 46.1 N. What is the flexural strength of the sample (select the closest option)?

1 point

- 277.0 kPa
- 240.6 kPa
- 211.3 kPa
- 149.9 kPa

No, the answer is incorrect.

Score: 0

Accepted Answers:

277.0 kPa

9) What is the size of test specimen used for flammability test?

1 point

- 600 mm × 100 mm × 75 mm
- 100 mm × 15 mm × 5 mm
- 200 mm × 25 mm × 10 mm
- 500 mm × 75 mm × 50 mm

No, the answer is incorrect.

Score: 0

Accepted Answers:

200 mm × 25 mm × 10 mm

10) What is the moment of inertia of the standard sample used to determine flexural strength of geofoam?

1 point

- $4.8 \times 10^{-7} \text{ m}^4$
- $1.3 \times 10^{-7} \text{ m}^4$
- $3.5 \times 10^{-7} \text{ m}^4$
- $2.2 \times 10^{-7} \text{ m}^4$

No, the answer is incorrect.

Score: 0

Accepted Answers:

$1.3 \times 10^{-7} \text{ m}^4$