

SAMPE Benelux – Bridge Building Contest 2018-2019

Questions and Answers

Question

In the flyer, there are no thermoplastic materials mentioned. Why not?

Answer

We would like to give every team the same opportunities. Using Thermoplastic materials forces the groups to have heating capacity for a certain temperature and/or dimensions. Therefore thermoplastic materials are not yet included in the contest.

Question

In the flyer it is mentioned that the amount of waste material during production is taken into account. How is this taken into account?

Answer

This is a typo in the flyer. The waste of the materials is not taken into account. Apologies for the confusion.

Question

What is expected delivery time of the materials. This because of the planning we are preparing for this contest.

Answer

We try to have a delivery time of about 2 weeks. All materials should be in stock. Filling in the material order document with all the needed information is important to make sure that the materials will not be lost during transport.

Question

According to the flyer, Pmax is the maximum compression load where failure occurs. How is failure defined? At the moment that the first crack growth is detected? Or when the bridge completely fails? Or none of those?

Answer

Pmax is the maximum load that is recorded during the tests in the load-displacement curve (ultimate failure). The test will be ended when the load reaches 90% of the Pmax-value.

Question

How is it calculated the C_bridge prod costs? Is it the overall cost of the material that we will order? Or is that value divided by 2?

Answer

The C_bridge prod costs are calculated with the amount of materials used in the bridge. So in the design phase this amount is estimated. During production you have to weight all the parts that goes into the bridge and finally you weight the bridge. This together you will fill in a document you will receive later from SAMPE. At the test day we will also weight the bridge before testing to make sure the filled in document is correct.

Question

Is it possible to use a combination of materials in our design? For example combination of carbon and flax and combination of foam and balsa.

Answer

All combinations are possible. Design the bridge as you think it is best.

Question

Are there any restrictions the quantity of material we can order?

Answer

The maximum quantity of ordering materials is for two bridges. Take into account that for resin injection you have to calculate some extra resin in channels and connections, but with the maximum dimensions and weight we know what the maximum amount of materials should be ordered for two bridges.

Question

Are the manufacturing process cost included in the calculation of D?

Answer

No, you do not have to include the costs for the manufacturing procedure. This factor is not included in the formula.

If you have a question, please send this to yaela@yaelacomposites.nl