RFQ2022/WSM/47: Supply and delivery of Granulator, Single Screw Extruder, Belt Conveyer and Magnetic Separator

Queries and Responses:

11 May 2022

1. We have gone through your bid submission form and the request is very vague. The supplier does sell all these equipment but as a complete solution. The supplier recycled plastic waste into useable plastic pellets which could be used in the production of new plastic products. Could we get more information from you about the intended input material, application, and the expectations of the output material quality?

Response: The input material is non-washed (Contamination should not be filtered out during the plasticizing stage) resin grades 1-7 mixed with powdered mineral additives (Calcium Hydroxide and Ash). The mixture is 80% plastic, 10% calcium hydroxide and 10% ash. We are not concerned about the output material quality. We are creating a rough open cell structure. The quality should not be compared to recycled plastic pellets.

2. What do you mean by resin grades 1-7? Is the material of a PE base, or PP, or other?

Response: All resin types (1-7) will be granulated and mixed together BEFORE feeding into the extruder. There is no one resin type that is a base.

3. Extruders in general have different screw configurations which are suited for different materials. A mix of materials could also required degassing/venting by which volatiles (gasses) are removed to provide a good quality of pellet.

Response:
   i. As far as screw configuration, we would request drawings of the standard screw options and we will evaluate before placing an order.
   ii. We do not want any venting. If the extruder has vents, we will request vent plates to be bolted over the vents. See attached picture.
iii. We would like to create steam in the barrel which will act as a blowing agent. We are not looking for a quality pellet. See attached pictures. The first is the raw extrusion and the second is after it has been granulated.

4. You would like to add a ratio of 10% Calcium Hydroxide and 10% Ash (Calcium Carbonate?), how do you plan to mix this in an accurate ratio?
Response: We will mix the Calcium Hydroxide (powdered hydrated lime) and Pozzolan (fly ash from coal or biomass or sugar cane) BEFORE FEEDING into the extruder. We have customized mixing machine for that.

5. Would you be able to elaborate on what is meant by a rough open cell structure? What is the intended application of this recycled material?
   Response: As shown in pictures above, this shows the open cell structure. After granulation, the material will be added to concrete products as an aggregate/admixture.

6. Please clarify if installation, training, and commissioning should be included in the scope of supply.
   Response: The installation, training and commissioning are not mandatory at this stage and the bidder can consider these as an OPTION.

7. Please clarify quoted in other than WST are acceptable?
   Response: You have to indicate the currency quoted in Annex-3 while submitting the quote and UNDP will convert the currency in USD or WST while conducting the evaluation using UN Exchange Rate (https://treasury.un.org/operationalrates/OperationalRates.php) based on the rate applicable with reference to the bid closing date.

8. Do you have the requirement on screw for the single screw extruder?
   Response: No, there is no requirement on the screw for the single screw extruder. Whatever you are offering as a standard screw (or options) would be acceptable.