

REQUEST FOR EXPRESSION OF INTEREST



Implemented by:
giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

PROCUREMENT OF LABORATORY EQUIPMENT

NATIONAL COMPETITIVE TENDER - CONSULTING FIRMS REQUIRED

Background

In June 2023 the GIZ E-Waste Programme published a call for proposals on environmental sound recycling and disposal of thermoplastics from e-waste in Ghana. 10 local Ghanaian recycling companies and 1 consortium submitted project proposals, of which 5 companies and one consortium have been selected to receive technical support in building up capacities in collection, sorting, recycling/ disposal of e-waste plastics.

The project cooperations will be conducted as so-called iDPPs – integrated development partnerships, in which the public partner GIZ E-Waste Programme provides support such as consultancy and other services up to 50% of the agreed budget; the selected companies provide at least 50% of the agreed budget as in-kind-contributions.

Key elements for the environmental sound and financially sustainable establishment of recycling of thermoplastics by the five selected companies/ consortium include setting up respective workflows within their operational procedures.

Plastics containing brominated flame retardants (BFRs) need to be separated from BFR-free plastics and recyclable plastics to be sorted into different plastic types. Additional recycling steps such as shredding, washing, compounding and molding need to be carefully planned to turn recycling of thermoplastics into viable business cases for the supported companies.

As part of this cooperation project, the Council of Scientific and Industrial Research is to be supported by GIZ with equipping their laboratory with plastic recycling machines for quality assurance services to the plastic recycling industry.

Specifications includes

Item (provision & installation)	Quantity	Specifications	
Injection Molding Machine	1	Equipment	Injection molding machine
		Injection weight	50-250 g
		Plastic types	ABS, HIPS, ABS/PC, PET, HDPE, PVC, LDPE, PP Additional: PUR, PA, PPO, PMMA, PC
		Flake size	6-10 mm
		Barrel temperature control	PID for control temperature up to 400°C in 2-4 heating zones
		Specific Injection Pressure	50-150 MPa *
		Screw Back Pressure	5-15 MPa
		Capacity	≥2 kg/h
		Heating power	1,5-3 kW
		Insulation	Fiberglass
		Power supply	AC 220-240V and 50 Hz (Ghana)
		Injection molds	Including 3-5 molds
		Objective	Inject test specimens or small commercialized products according to the injection weight
		*Important key parameter specially to inject ABS due to its viscosity, it could be a different value as long as all the materials can be injected.	
Melt Flow Rate Indexer	1	Measurement	Melt flow rate for thermoplastics
		Suitable for	ABS, HIPS, ABS/PC, PET, HDPE, PVC, LDPE, PP, PS Additional: PUR, PA, PPO, PMMA, PC, PE
		Standards	ISO 1133 / ASTM D1238
		Sample size particle	2.5-3mm
		Power supply	AC 220-240 V and 50 Hz (Ghana)
		Extrusion part	
		Discharge hole diameter	Φ2.095±0.005mm
		Discharge hole length	8.000±0.025mm
		Charge cylinder internal diameter	Φ9.550±0.025mm
		Piston rod diameter	Φ9.475±0.015mm
		Piston rod effective stroke (Loop distance from up and down)	30mm
		Control precision	±0.100mm
		Measuring parameters	
		Temperature range	Room temperature maximum 450
		Temperature control precision	±0.5
		Temperature fluctuation	±0.2
		Temperature resolution	0.1
		Temperature recovery time	≤4min
		Timing accuracy	0.1s

		Cutting mode	Automatic (during process), manual (when adjusting)
		Measuring range	0.1~100g (300g)/10min
		Total load	Total 8 grades, 8 sets of weight
		Test load	
		Grade 1	0.325kg
		Grade 2	1.200kg
		Grade 3	2.160kg
		Grade 4	3.800kg
		Grade 5	5.000kg
		Grade 6	10.000kg
Shredder	1	Grade 7	12.500kg
		Grade 8	21.600 kg
		Equipment	Single shaft shredder
		Plastic types	ABS, HIPS, ABS/PC, PET, HDPE, PVC, LDPE, PP Additional: PUR, PA, PPO, PMMA, PC
		Final flake size	Sieves: 3 mm, 5 mm and 8 mm
		Capacity	≥8 kg/h
		Power	1,5-3 kW
		Amperage	10-16A
		Speed	Gearbox reducer
		Controllers	Speed Control + forward + backwards + Emergency stop
		Power supply	AC 220-240 V and 50 Hz (Ghana)

- Tenderers will be required to provide the following:
- Signed Letter of Bid and Company Profile
 - The institution must have been in operation for at least 3 - 5 Years.
 - Priced Quotation (to the Required Specification)z
 - Valid Tax Clearance Certificate
 - Business Registration Certificate
 - VAT Registration Certificate
 - Valid SSNIT Clearance Certificate
 - Declaration of Business Ownership by General Manager (3) or (Inclusion of Form A for Sole Proprietorship or Form 3 for Limited Liability)
 - **Bidders must submit two (2) Copies of the tender documents.**
- PLEASE NOTE:**
THE CURRENCY OF YOUR OFFER SHOULD BE IN GHANA CEDIS
ALL PROSPECTIVE BIDDERS ARE REQUIRED TO PERFORM THEIR TAX OBLIGATIONS IN GHANA.
- NOTE:**
- **Kindly Visit the link for Terms of Reference and other documents to be used in preparing your Technical and Financial Proposals.**
 - **Kindly contact the email address indicated for procurement concerns.**

Link- www.giz.de/en/worldwide/115442.html

Delivery period must be indicated.

Tenders should be addressed according to the **Tender Number: 91188502 / 21.2059.0-001.02 "Procurement of Laboratory Equipment"** and submitted to:

The Procurement Unit
GIZ Office
P.O. Box KA 9698
Accra

Location: **No.7 Volta Street, Airport Residential Area, Accra**

- To All Bidders:**
- Bids must be submitted at the **GIZ Ghana Country Office Reception.**
 - The deadline for submission is **07.07.2025 until 11:59 PM.**
 - Documents should be submitted as early as possible before the deadline.
 - Should the reception be closed, documents might exceptionally be dropped off at the guard's booth.
 - The guards need to be told by the person submitting the documents that they are submitting tender documents.
 - Always send a receipt with your documents stating the number of the tender.
 - This receipt will be signed by the receptionist or a guard (in case of exceptional drop off at the guard's booth) to provide the bidder with a proof of delivery / submission.
- "Please note that participating in a tendering process of GIZ is free of charge for bidders. At no phase of the process is the bidder required to make any payment to GIZ or to one of its employees.*
- Kindly Note by sending in your offer, you are agreeing to the GIZ General Terms and giving us the consent to process your company data.**

ONLY SHORTLISTED FIRMS WILL BE CONTACTED