

SPECIFICATION

Name of Item	Specification	A/U	QTY
TNT (Tri Nitro Toluene) Flake	<p>TNT (Tri Nitro Toluene) Flake has to fulfill the following properties/requirements:</p> <p>a. Must be of homogeneously yellow to brown yellow color.</p> <p>b. Density =1.654 gm/cc, Melting / Setting point = 80.2° ~ 82° C, Velocity of Detonation = Min 6900 m/s, Shelf Life= Min 20 yrs.</p> <p>c. If initiated with a standard detonator, the explosive must be fully detonated.</p> <p>d. The Explosive TNT should comply with the body and fuze properties of BOF Products.</p> <p>e. The properties/requirements of the explosive mentioned as below must be certified by the manufacturer:</p> <p>(i) TNT grade: Military Grade.</p> <p>(ii) It will be non-hygroscopic.</p> <p>(iii) It will not react with metals.</p> <p>(iv) Percentage of Acidity: Max 0.02% with Manufacturing Certificate.</p> <p>(v) Percentage of Moisture: Max 0.1% with Manufacturing Certificate.</p> <p>(vi) Percentage of Sulfated Ash: Nil.</p> <p>(vii) Organic Matter insoluble in Toluene: Max 0.05%.</p> <p>(viii) Gritty Particle retained on 250 Micron: Minimum 99%.</p> <p>(ix) Scum, suspended matter and deposit presence after melting test: Nil.</p> <p>(x) Darkening on heating for 2 hours: Nil.</p> <p>(xi) Percentage of Na (Sodium): 0.001%.</p>	Kg	25,000

Condition:

a. **Country of Origin** : USA, Serbia, Turkey Poland, Sweden, Bosnia & Herzegovina, China, Pakistan, South Korea, Bulgaria, Ukraine, Germany, Hungary, Belarus, Iran, Czech Republic, UAE, Vietnam, Philippines, Egypt, Algeria, Malaysia, New Zealand, Romania, Russian Federation, South Africa, Australia, Austria, Brazil, Canada, France, Indonesia, Japan, Netherland, Singapore, Spain, UK & Italy.

b. **Country of Manufacturer** : To be mentioned.

c. **Name of Principal** : To be mentioned.

d. **Name of Manufacturer** : To be mentioned.

e. **Port of Shipment** : Country of Manufacturer.

f. **Offer Validity** : 180 days from tender opening date.

g. **Warranty/Guarantee** 12 Months and Shelf Life 20 Years certificate for supply of store as per offer to be provided by the manufacturer along with the offer and store.

h. **Pre-Shipment Inspection:**

i. 3 (Three) members {2 (Two) members from BOF & 1 (One) member from IA&E} for a period of 5 (Five) workings days (Excluding journey period).

ii. Supplier must submit detail plan of PSI (Modus Operandi).

iii. Supplier must also mention PSI cost to be borne by them at their end.

iv. If PSI is not carried out by the buyer due to any pandemic situation, then the Quality Assurance Certificate (QAC) original hard copy signed by appropriate authority of Quality Control Department of manufacturer.

Terms & Conditions

Supplier must mention their compliance on the following mentioned points :

1. A principal/manufacturer can submit **only one offer through one local agent** for any individual item. Offers through multiple local agents by same principle/manufacturer will be **treated as rejected**.
2. To ensure unhindered LC handling the principal must provide a certificate to confirm that their LC operating bank has RMA (Relationship Management Agreement) with the local scheduled Bank of Bangladesh.
3. Supplier must **clearly mention** (in the technical offer) that as principal/manufacturer they poses necessary **export permit** from the concern ministry or any other authority of their country. They must also submit a certificate in this regard as per the attached specimen format at Annex G.
4. Before signing the contract, foreign currency Performance Guarantee @ 10% of total LC value is to be submitted by the Principal in favour of Commandant, Bangladesh Ordnance Factories, Gazipur Cantonment, Gazipur through any scheduled Bank located in Bangladesh (As per the format at Annex E).
5. A separate **certificate should be provided** by the principal **originally signed** (Computerized or digitally edited signature will not be accepted) stating that they are aware of the requirement of the PG and if the contract is awarded they will be bound to provide the PG as per the format at Annex F, **otherwise administrative action will be taken against the principal and local agent**.
6. The stores should be supplied to BOF at **supplier's cost**.
7. If the supplier fails to deliver the stores within the stipulated period, the followings will be applicable:
 - a. Cancel the contract and/or,
 - b. Decision at the discretion of BOF.
8. Inspectorate is the authority in all matters pertaining to Inspection. Any verdict by the inspectors regarding rejection, acceptance, and /or deviation of machine involving price reduction will be treated as final and will not be subject to arbitration.
9. The Supplier must submit the following **attested documents** with the schedule :
 - a. **Trade License**
 - b. **Tin Certificate**
 - c. **Up to date VAT Registration certificate.**

GENERAL REQUIREMENTS AND OTHER TERMS AND CONDITIONS FOR TNT (TRI NITRO TOLUENE) FLAKE

1. **General Requirements.**

a. The TNT (Tri Nitro Toluene) Flake must be brand new, free from impurities, all kinds of defects/damages and suitable to use with the BOF products. In this regard suitable certificate will be provided with offer and stores.

b. In presence of PSI team supplier will show all test of mentioned properties at their own cost during PSI.

c. The store must be suitable for use in tropical climate. Certificate should be provided to this effect by the manufacturer along with the offer and stores.

d. The year of manufacture of the store should be of current year i, e contracted calendar year. Certificate should be provided to this effect by the manufacturer along with the offer and stores.

e. The store should be safe in storage, transportation etc. and should not cause any health hazard. Certificate should be provided to this effect by the manufacturer along with the offer and stores.

f. Charge of test (if any) during inspection in PSI and in BOF should be borne by the supplier.

g. Books & publication: Catalogue/Brochure/Manual should be submitted along with the offer and stores.

h. Test facilities of TNT not available in this inspectorate. As such a certificate from some reputed laboratory should be provided by the supplier along with the stores mentioning properties of TNT (Flake) as per specification.

j. Guarantee Certificate for supply of stores as per offer to be provided by the manufacturer along with the offer and stores.

k. Warranty and Shelf Life Certificate by the manufacturer as mentioned below should be furnished along with the offer and stores.

(i) **Warranty Certificate.** The store supplied is brand new, free from impurities and that in the event of any shortage, defects/damages being found after inspection the store should be replaced by the supplier at their own cost within 6 (six) months of the case arises. The warranty period of the stores will be 12 (twelve) months from the date of issue of "Inspection Note" by IA&E (Final Acceptance).

(ii) **Shelf Life certificate.** The shelf life of the TNT (Tri Nitro Toluene) Flake minimum 20 years from the date manufacture. If the store is found defective within the shelf life of the TNT (Tri Nitro Toluene) Flake must be replaced by the supplier at their own cost (CFR basis) within 3 (Three) months as the case arises.

l. The store should be preferably of 1 (One) lot but not more than 2 (Two) lots.

m. All marking and other details should be in English language.

n. Quality control and inspection certificate should be provided by the manufacturer along with the stores.

p. All certificates and letter of authorization should be in English language.

q. Copies of all certificate, shipping documents, bill of lading, proforma invoice and packing list should be submitted to IA&E by BOF with Material Inspection (MI) slip.

2. **Packing:**

- a. The TNT (Tri Nitro Toluene) Flake should be packed as per internationally accepted packing boxes.
- b. The packing box (package) should be moisture proof, suitable for easy handling, storage and transportation. The stores are to be securely packed with sea worthy packing and clearly marked for safe transit by Air/Sea.
- c. Net weight of 1 (one) box (package) should be 50 (Fifty) Kg or as per factory standard packing.
- d. Packing material to be such that it will not be affected by damp, insects or any other harmful material during storage up to the shelf life of the store i.e (Minimum 20 years) shelf life. The manufacturer should give a certificate to this effect while submitting offer and stores.

3. **Marking on the Packing Box:**

- a. Following marking to be stenciled on the top of the boxes:
 - (i) Consignee: Commandant, Bangladesh Ordnance Factory, Gazipur Cantonment, Bangladesh.
 - (ii) Contract number & date.
- b. Following marking to be stenciled on the front side of the boxes:
 - (i) Weight of TNT (Tri Nitro Toluene) Flake per packed.
 - (ii) Full nomenclature of stores.
 - (iii) Lot number & year of manufacture.
 - (iv) Safety distance category.
 - (v) Govt. explosive group (To be shown the red circle).
 - (vi) International Maritime Dangerous Goods (IMDG) code with explosion symbol.
 - (vii) Dimension of the box.
 - (viii) Net weight of the TNT (Tri Nitro Toluene) Flake.
 - (ix) Gross weight of the box.
- c. Following marking should be stenciled on the right or left side of the boxes:
 - (i) Package number-01/100, 02/100 and so on.
 - (ii) United Nation (UN) number.
 - (iii) Rail loading and shipping category.
 - (iv) Fire fighting classification.
 - (v) Country of origin.

4. **Environmental Condition:**

- a. Storage temperature range: 0⁰C to +50⁰C.
- b. Storage humidity minimum: 95%.
- c. Operating temperature range: -5⁰C to +55⁰C.
- d. Operating humidity minimum: 95%.

5. **Inspection Certificate:** Final inspection certificate from the manufacturer should be provided along with store by the supplier and should be mentioned in the tender.

6. **Pre-Shipment Inspection (PSI):**

- a. Pre-shipment inspection (PSI) will be carried out jointly by BOF and Inspectorate of Armaments & Explosive (IA&E) at the discretion of BOF authority. The team may be comprised of 3 (Three) members {2 (Two) members from BOF & 1 (one) member from IA&E} for a period of 5 (Five) working days excluding journey period. The cost incurred by BOF PSI members will be borne by BOF and cost of IA&E PSI members will be borne by Bangladesh Army. Supplier should inform about the date of Pre-shipment inspection (PSI) at least 08 (eight) weeks (in respect of time required for obtaining visa of respective country) prior to the exact date of carrying out of PSI.

- b. All types of movement/transportation (air/sea/road/rail), medical (if required) of the team within the manufacturer's country, reception and arrangement for entry into the country/concerned area for the PSI are also to be arranged by the supplier.
- c. Interpreter detailed by supplier for the pre-shipment inspection team should be competent enough to interpret the technical terms (as applicable).
- d. Provide necessary secretarial support (typing and printing facilities) to the pre-shipment inspection (PSI) team.
- e. The Pre-shipment inspection (PSI) will be carried out at manufacturer's production plant/factory. Pre-shipment inspection (PSI) should include visual inspection, laboratory/chemical test and inspection of production line of same/similar type of explosive (if required). The PSI team will see the velocity of detonation test, melting point=80.2°C (min), test firing and any other test deemed necessary by PSI team. All equipment and facilities of test should be provided by the supplier. PSI team will check the parameters of the item as per technical requirements of the contract.
- f. PSI team will accept the stores provisionally, if the stores are found as per contractual requirement. PSI report will be vetted by both the vetting committee of BOF and IA&E.
- g. If any deficiency/discrepancy found during vetting of PSI report, then deficiency/discrepancy items will be filled up or rectified by the supplier and will forward completion certificate to BOF. Then shipment clearance will be given by BOF. After necessary rectification 2nd PSI may be held, if deficiency/discrepancy items are major in nature. In that case supplier will bear all PSI cost including Daily Allowance (DA) of the PSI team members.
- h. If any PSI is not carried out by purchaser and intimated to supplier as such in written than the report of "Quality Assurance Department" of manufacturer will be consider as PSI report. This report should be provided along with the shipping documents.

6. **Post-shipment Inspection:** The store on being received at the consignee's end will be inspected by Inspectorate of Armaments and Explosive (IA&E) or authorize representative. If any article found to be contrary and not in accordance with the contract will be processed as per clause 1.k(1) above. At the time of inspection, the supplier or his local representatives and representatives of BOF shall remain present. Inspection report will be signed by all representatives. The inspectorate will issue final inspection report after receipt of stores at consignee's end provided the visual inspection found satisfactory and the case of clarification/replacement of stores if any, is settled as per visual inspection formalities. Part inspection note will not be issued.

7. **Part shipment:** Part-shipment is not allowed.

8. **Trans-shipment:** Trans-shipment is not allowed.

9. **Authority Holding Sealed Particulars:** I A & E, Gazipur Cantonment.

10. **Inspecting Officer:** Chief Inspector, I A & E or his authorized representative.

11. **Inspection certificate:** Final Inspection certificate from the manufacturer should be provided along with store by the supplier.

12. **Country of Origin:** USA, Serbia, Turkey Poland, Sweden, Bosnia & Herzegovina, China, Pakistan, South Korea, Bulgaria, Ukraine, Germany, Hungary, Belarus, Iran, Czech Republic, UAE, Vietnam, Philippines, Egypt, Algeria, Malaysia, New Zealand, Romania, Russian Fedaration, South Africa, Australia, Austria, Brazil, Canada, France, Indonesia, Japan, Netherland, Singapore, Spain, UK & Italy.