कार्यालय प्रमुख अभियन्ता (विकास)
एवं विभागाध्यक्ष
Office of Engineer-in-Chief (Dev.) &
Head of Department
उ०प्र०, लो०नि०वि०, लखनऊ-226001
UP PWD, Lucknow-226001

उत्तर प्रदेश सरकार
लोक निर्माण विभाग

96, महात्मा गांधी मार्ग, लखनऊ–226001
96, Mahatma Gandhi Marg, Lucknow
Office : 0522-2237315,2235472
Fax No. : 0522-2236716
E-mail : pwdeinc@gmail.com

पत्रांक 1530/बीडीडी-1(एनएच)/40एम-टी-11/2021 दिनांक 02.11.2021

# कार्यालय-ज्ञाप

कार्यालय ज्ञाप संख्या–1493 / बी0डी0डी0–1(एनएच) / 40एम0टी0–11 / 2021 दिनांक–13.10.2021 द्वारा आयोजित लो0नि0वि0 की उच्च स्तरीय तकनीकी समिति (Empowered Committee) की बैठक में विचारोपरान्त, उ0प्र0 लोक निर्माण विभाग के निर्माण कार्यों में प्रयुक्त होने वाले steel reinforcement हेतु केन्द्रीय लोक निर्माण विभाग तथा भारतीय राष्ट्रीय राजमार्ग प्राधिकरण की भांति व्यवस्था निर्धारित की गयी है।

इस प्रयोजनार्थ Empowered Committee द्वारा जारी अनुमोदन दिनांक 02.11.2021 का संज्ञान लेने का आदेश पारित किया जाता है।

यह आदेश तत्काल प्रभाव से लागू होगा।

संलग्नकः– Empowered Committee द्वारा अनुमोदित प्रस्ताव

02/11/2021
(राकेश सक्सेना)
o/c प्रमुख अभियन्ता (विकास)
विभागाध्यक्ष

पत्रांक-.......................................... दिनांक........................

प्रतिलिपिः-निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषितः-

1. प्रमुख सचिव, लो0नि0वि0/नियोजन विभाग/ग्राम्य विकास विभाग/आवास/नगर विकास,उ0प्र0 शासन,लखनऊ।
2. प्रमुख अभियन्ता(परिकल्प/नियोजन)/(ग्रामीण सड़क), लो0नि0वि0, लखनऊ।
3. प्रमुख अभियन्ता, सिंचाई विभाग, कैन्ट रोड, लखनऊ।
4. प्रबन्धक निदेशक, उ0प्र0, रा0नि0नि0लि0/उ0प्र0 राज्य सेतु निगम लि0, लखनऊ।
5. मुख्य प्राविधिक परीक्षक, लोक निर्माण विभाग/सिंचाई विभाग, लखनऊ।
6. महालेखाकार, वर्क्स उ0प्र0 इलाहाबाद।
7. समस्त मुख्य अभियन्ता, लो0नि0वि0, उ0प्र0।
8. निदेशक एवं मुख्य अभियन्ता, ग्रामीण अभियंत्रण विभाग, जवाहर भवन, लखनऊ।
9. निदेशक, प्रायोजना रचना एवं मूल्यांकन प्रभाग, योजना भवन, उ0प्र0 लखनऊ।
10. निदेशक एवं मुख्य अभियन्ता, चीनी उद्योग एवं गन्ना परिषद, न्यू बेरी रोड, लखनऊ।
11. निदेशक, पंचायती राज, निकट पुरनियां चौराहा, लोहिया भवन, लखनऊ।
12. निदेशक, मण्डी परिषद, किसान मण्डी भवन, विभूतिखण्ड, गोमती नगर, लखनऊ।
13. मुख्यालय स्थित समस्त वरिष्ठ स्टाफ आफीसर/अधीक्षण अभियन्ता, लो0नि0वि0, लखनऊ।
14. निदेशक, अन्वेषणालय/उप निदेशक, क्यू0पी0सी0, लो0नि0वि0, लखनऊ।
15. समस्त अधीक्षण अभियन्ता/अधिशासी अभियन्ता, लो0नि0वि0,उ0प्र0।

02/11/21
(अशोक कुमार)
o/c मुख्य अभियन्ता (मु0-2)
लो0नि0वि0, लखनऊ

## दिनांक 13.10.2021 को आयोजित उच्च स्तरीय तकनीकी समिति की बैठक के एजेण्डा बिन्दु सं0–07 का अनुमोदित प्रस्ताव

स्टील मंत्रालय भारत सरकार के अर्द्धशासकीय पत्र सं0–एस–20027 / 13 / 2020–Tech दिनांक 12.01.2021(संलग्नक–1) द्वारा निर्माण कार्यों में प्रयुक्त होने वाले स्टील के सम्बन्ध में पुरानी व्यवस्था को शिथिल करते हुए नवीन व्यवस्था प्रख्यापित की गयी थी।

उपरोक्त के क्रम में भूतल परिवहन मंत्रालय के पत्र दिनांक 12.02.2021 (संलग्नक–2) द्वारा कार्यों में प्रयुक्त होने वाले स्टील रिइन्फोर्समेन्ट के सम्बन्ध में निम्न व्यवस्था निर्गत की गयी है:–

- It shall be ensured that all steel reinforcement shall conform to IS:1786 (HYSD) and IS:432 (MS).
- For plain and reinforced cement concrete (PCC and RCC) or pre-stressed concrete (PSC) works, the reinforcement/unmentioned steel as the case may be, shall consist of the following grades of reinforcing bars:

  Mild Steel (MS): Grade-1 (conforming to IS: 432)

  High Yield Strength Deformed Steel (HYSD): Fe415, Fe415D, Fe415S, Fe500, Fe500D,

  Fe500S, Fe550, Fe550D & Fe600(conforming to IS 1786)

  If any grade of steel given above is not available steel of next higher grade may be used.

  For seismic zones iii, iv, and v , HYSD steel bars having minimum elongation of 14.5% shall be used.

  For seismic zones iii, iv, and v, HYSD steel bars shall possess following properties:

  a. The actual 0.2% proof strength of steel bars based on tensile test must not exceed their characteristic 0.2% proof strength by more than 20 percent.

  b. The ratio of the actual ultimate strenght to the actual 0.2 percent proof strength/yield strength shall be at least 1.15.
- Only new steel shall be delivered to the site. Every bar shall be inspected before assembling on the work and defective, brittle or burnt bars shall be discarded. Bars with cracked ends shall be discarded.

केन्द्रीय लोक निर्माण विभाग द्वारा भी स्टील मंत्रालय के पत्र के क्रम में दि0 17.02.2021 को जारी पत्र (संलग्नक–3) द्वारा कार्यों में प्रयुक्त होने वाले स्टील रिइन्फोर्समेन्ट के सम्बन्ध में उपरोक्तानुसार ही व्यवस्था निर्गत की गयी है जिसमें अतिरिक्त उल्लेखनीय बिन्दु निम्नवत है:–

- The contractor shall obtain manufacturer's certificate stating the process of manufacture, chemical composition and test sheet giving result of each mechanical test applicable to the material purchased and submit it to the Engineer-in-Charge. Each test certificate shall indicate the number of the cast to which it applies, corresponding to the number or identification mark to be found on the material.
- The Engineer-in-Charge shall get each consignment tested for both chemical composition and physical properties (including bend and re-bend test) as specified in IS:1786 from NABL accredited laboratory or any Government laboratory.
- Reinforcement bar is one of the most important building materials. Its quality directly affects the life span, resistance to earthquake and durability of the structure . In order to ensure consistent quality of rebars, the NIT approving authority may prescribe requted brands like SAIL, RINL, Tata Steel, JSW Steel, JSPL in the list of preferred makes. Only corrosion resistant steel rebars shall be used.

NHAI के पत्र दि0 19.05.2021 द्वारा SAIL, RINL, TATA Steel, JSW Steel, JSPL एवं Shyam Steel को Prefered Make में रखा गया है। (संलग्नक–4)

अतः उपरोक्त के दृष्टिगत उ0प्र0 लोक निर्माण विभाग में निर्माण कार्यों में प्रयुक्त होने वाले स्टील के सम्बंध में नियमानुसार व्यवस्था प्रख्यापित की जाती है:

- It shall be ensured that all steel reinforcement shall conform to IS:1786 (HYSD) and IS:432 (MS).
- For plain and reinforced cement concrete (PCC and RCC) or pre-stressed concrete (PSC) works, the reinforcement/unmentioned steel as the case may be, shall consist of the following grades of reinforcing bars:
  Mild Steel (MS): Grade-1 (conforming to IS 432)
  High Yield Strength Deformed Steel (HYSD): Fe415, Fe415D, Fe415S, Fe500, Fe500D, Fe500S, Fe550, Fe550D € Fe600(conforming to IS 1786)
  If any grade of steel given above is not available steel of next higher grade may be used.
  For seismic zones iii, iv, and v , HYSD steel bars having minimum elongation of 14.5% shall be used.
  For seismic zones iii, iv, and v, HYSD steel bars shall possess following properties:
  a. The actual 0.2% proof strength of steel bars based on tensile test must not exceed their characteristic 0.2% proof strength by more than 20 percent.
  b. The ratio of the actual ultimate strength to the actual 0.2% percent proof strength/yield strength shall be at least 1.15.
- The contractor shall obtain manufacturer's certificate stating the process of manufacture, chemical composition and test sheet giving result of each mechanical test applicable to the material purchased and submit it to the Engineer-in-Charge. Each test certificate shall indicate the number of the cast to which it applies, corresponding to the number or identification mark to be found on the material.
- The Engineer-in-Charge shall get each consignment tested for both chemical composition and physical properties (including bend and re-bend test) as specified in IS:1786 from NABL accredited laboratory or any Government laboratory.
- Reinforcement bar is one of the most important building materials. Its quality directly affects the life span, resistance to earthquake and durability of the structure . In order to ensure consistent quality of rebars, the NIT approving authority may prescribe reputed brands like SAIL (Steel Authority of India Ltd.) , RINL (Rashtriya Ispat Nigam Ltd.), Tata Steel, JSW Steel (Formerly Jindal South West), JSPL (Jindal Steel and Power Ltd.) and Shyam Steel in the list of preferred makes. Only corrosion resistant steel rebars shall be used.

मुख्य अभियन्ता
(मुख्यालय–1)
लो0नि0वि0, लखनऊ

मुख्य अभियन्ता
(मुख्यालय–2)
लो0नि0वि0, लखनऊ

मुख्य अभियन्ता
(रा0मा0)
लो0नि0वि0, लखनऊ

मुख्य अभियन्ता
(वाह्य सहा0 परि0)
लो0नि0वि0, लखनऊ

2/11/2021
प्रमुख अभियन्ता
(परिकल्प एवं नियोजन)
लो0नि0वि0, लखनऊ

2/11/2021
प्रमुख अभियन्ता
(विकास) एवं विभागध्यक्ष
लो0नि0वि0, लखनऊ

2.11.21
प्रमुख अभियन्ता
(ग्रामीण सड़क)
लो0नि0वि0, लखनऊ

संलग्नक -1

रसिका चौबे
Rasika Chaube
Additional Secretary

सत्यमेव जयते

भारत सरकार
इस्पात मंत्रालय
GOVERNMENT OF INDIA
MINISTRY OF STEEL

D.O. No. S-20027/13/2020-TECH

Dated: 12th Jan, 2021

Dear Sir,

I would like to bring to your kind notice that Ministry of Steel has been receiving representations from the SME steel producers regarding certain guidelines for procurement of steel, issued by various user organisations, which are discriminatory to the SME steel producers.

2 One such guideline by CPWD, has stipulated that TMT bars produced by steel manufacturer using iron ore as the basic raw material and having BF-BOF route, COREX-BOF route and DRI - EAF (having EAF of capacity 100 MTPA or more) shall only be eligible (copy enclosed). Another guideline issued by MoRTH recently, stipulates that steel products should be produced from iron ore and not from shredded scrap or DRI (copy enclosed).

3 Ministry of Steel would like to clarify the following on the aforementioned issue:

- Ministry of Steel does not support any classification of the steel producers in terms of "primary producers" or "secondary producers".
- Routes of steel production have no bearing on the quality of the steel produced as long as these are produced as per the relevant standards.
- Use of raw material such as Iron Ore, Scrap or DRI also have no bearing on the quality of the steel produced as long as these are produced as per the relevant standards. Even in Blast Furnace high proportion of processed material such as pellets & sinters are used in place of lump iron ore.
- Use of scrap in steel making is being encouraged as it promotes recycling and leaves less carbon footprint. In the countries such as US & EU most of the steel is produced from scrap. DRI is used as a substitute of scrap in steel making in India and abroad where scrap is not available at competitive rates. Use of these raw materials in producing steel in no way lowers the quality of steel produced, when steel is produced as per the specification of the relevant standards. Further, size of the furnace also does not have any bearing on the quality of the steel produced.
- Issuance of the Steel Quality Control Order by Ministry of Steel, has made adherence to BIS Standards mandatory for most of the steel products produced, both from large & small producers.
- Concerns of quality of steel can be addressed by the user industry by insisting on BIS certified steel products.

4 You are therefore requested to sensitize the organisations under the administrative control of your Ministry and ensure that suitable changes are made in the internal procurement guidelines. This will help in addressing the long pending grievance of the SME steel producers.

With regards,

Yours sincerely,

(Rasika Chaube)

**Shri Sanjeev Ranjan**
Secretary
Ministry of Road Transport & Highways
Transport Bhawan, 1, Parliament Street
New Delhi-110001

**<u>Encls: as above.</u>**

संलग्नक-2

(2)

RW/NH-34066/09/2017-S&R(B)
GOVERNMENT OF INDIA
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
S&R(B) Section
Transport Bhawan, 1, Parliament Street, New Delhi-110001

Dated: 12th February, 2021

To

1. The Chief Secretaries of all the State Governments / UTs.
2. The Principal Secretaries / Secretaries of all States / UTs Public Works Department dealing with National Highways, other Centrally sponsored schemes.
3. The Engineers-in-Chief and Chief Engineers of Public Works Department of States/UTs dealing with National Highways, other Centrally sponsored schemes.
4. The Director General (Border Roads), Seema Sadak Bhavan, Ring Road, Delhi 110010.
5. The Chairman, National Highways Authority of India, Plot G-5 & 6, Sector-10, Dwarka, New Delhi 110075.
6. The Managing Director, NHIDCL, PTI Building, Parliament Street, New Delhi 110001.

**Sub: Reinforcing Steel Bars: Clause 1009.3.1 of Ministry's Specifications for Road and Bridge Works regarding.**

Sir,

Ministry vide circular no. RW/NH-34066/09/2017-S&R (B) dated 28.10.2020 has amended 2nd and 4th para of Clause 1009.3.1 of Ministry's Specifications for Road and Bridge, as under:

**2nd Para**

*"All steel shall be procured from producers who manufacture billets directly from iron ores and roll the billets to produce steel conforming to IS: 1786. No re-rolled steel shall be incorporated in the works. The steel shall also be procured from other producers provided it is manufactured from the billets made directly from iron ores and not from shredded scrap and sponge iron as basic feedstock. In such cases, the other producers will have to submit the proof of purchase such as GST, Invoice etc. from the billet producers to establish that billets are made directly from iron ores and have been procured from them. The steel shall be got tested by the Engineer in the NABL affiliated laboratories only as a third party check. It shall be ensured that all the test results conform to IS: 1786."*

4th Para

*"For the steel procured from producers who manufacture billets directly from iron ores also, the Engineer/Employer may carry out checks on materials through third party as mentioned above, for conforming to the test results shown in the certificates so as to ensure the quality of steel supplied."*

2. Ministry has received representation from Steel Manufacturers Association that other routes/material for production of steel may also be allowed as per relevant standards. Further, Ministry of Steel vide their D.O. No. S-20027/13/2020-TECH dated 12.01.2021 has clarified that Ministry of Steel does not support any classification of the steel producers and routes of steel production and use of raw materials have no bearing on the quality as long as production is as per relevant standards. Ministry of Steel in the said letter has highlighted adherence to BIS standards and purchase of BIS certified steel products.

3. The matter has been considered in the Ministry, and it has been decided to allow steel produced from ore/billets/pellet/melting of scrap subject to fulfillment of conditions mentioned below. Accordingly, clause 1009.3.1 of Ministry's specification for Road and Bridge works has been amended as under:

"For plain and reinforced cement concrete (PCC and RCC) or pre-stressed concrete (PSC) works, the reinforcement/unmentioned steel as the case may be, shall consist of the following grades of reinforcing bars:

Mild Steel (MS): Grade-1 (conforming to IS 432)

High Strength Deformed Steel (HSD): Fe415, Fe415D, Fe415S, Fe500, Fe500D, Fe500S, Fe550, Fe550D & Fe600 (conforming to IS 1786)

If any grade of steel given above is not available steel of next higher grade may be used.

For seismic zones III, IV & V, HSD steel bars having minimum elongation of 14.5% shall be used.

For seismic zones III, IV and V, HSD steel bars shall possess following properties:

a. The actual 0.2% proof strength of steel bars based on tensile test must not exceed their characteristic 0.2% proof strength by more than 20 percent.

b. The ratio of the actual ultimate strength to the actual 0.2 percent proof strength/yield strength shall be at least 1.15.

4. All the manufacturers/ suppliers, as the case may be, shall supply the purchaser or his authorized representative with the certificate stating the process of manufacture and also the test sheet signed by the manufacturer giving the result of each mechanical test applicable for each lot of the material supplied and chemical

composition. Sample shall be got tested by the Authority's Engineer/Independent Engineer/Supervision Consultant in the NABL accredited laboratories only, as a third party check before source approval. It shall be ensured that all the test results conform to IS: 432 (MS) or IS: 1786 (HSD).

Only new steel shall be delivered to the site. Every bar shall be inspected before assembling on the work and defective, brittle or burnt bars shall be discarded. Bars with cracked ends shall be discarded."

5. The contents of this Circular may please be brought to the notice of all the Concerned in your Organization for strict implementation. This circular will be implemented from the date of its issuance.

6. This issues with the approval of the Competent Authority.

Yours faithfully,

(Ashok Kumar Sharma)
SE-S&R(Bridges)
For Director General (Road Development) & SS

Copy to:

1. All Technical Officers in the Ministry of Road Transport & Highways.
2. All Joint Secretaries in the Ministry of Road Transport & Highways.
3. All ROs & ELOs of the Ministry of Road Transport & Highways.
4 The Secretary General, Indian Roads Congress.
5. The Director, IAHE, Noida
6. Technical circular file of S&R (B) Section.
7. NIC for uploading on Ministry's website under "what's new".

Copy for kind information to:

1. PS to Hon'ble Minister (RT&H, MS&ME) / PS to Hon'ble MOS (RT&H).
2. Sr. PPS to Secretary (RT&H).
3. PPS to DG (RD) & SS.
4. PPS to AS & FA/ADG-I/ADG II/ ADG III/ ADG IV

(3)

# केन्द्रीय लोक निर्माण विभाग
## कार्यालय ज्ञापन
### ISSUED BY THE AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN NEW DELHI Dated:17.02.2021 Subject: Modified guidelines for use of reinforcement bars in structures.

1. The Ministry of steel vide DO No.S-20027/13/2020-TECH dated 12.01.2021 addressed to the Secretary, MoHUA has asked CPWD to make suitable changes in steel procurement guidelines dated 27.12.2019.

2. The matter has been carefully examined in the Directorate. It has been decided to withdraw OM No.CE(CSQ)/SE(TAS)/EE(TAD)/Steel/2019/497 dated 27.12.2019.

3. The modified guidelines for procurement of steel are given below.

3.1 For reinforced cement concrete or pre-stressed concrete works, the reinforcement bars shall consist of the following grades conforming to IS 1786 : 2008 (Indian Standard specification for high strength deformed steel bars and wires for concrete reinforcement): Fe 415, Fe 415D, Fe 415S, Fe 500, Fe 500S and Fe 550.

3.2 The contractor shall obtain manufacturer's certificate stating the process of manufacture, chemical composition and test sheet giving result of each mechanical test applicable to the material purchased and submit it to the Engineer-in-Charge. Each test certificate shall indicate the number of the cast to which it applies, corresponding to the number or identification mark to be found on the material.

3.3 The Engineer-in-Charge shall get each consignment tested for both chemical composition and physical properties (including bend and re-bend test) as specified in IS . 1786 from NABL accredited laboratory or any Government laboratory.

4. Reinforcement bar is one of the most important building materials. Its quality directly affects the life span, resistance to earthquake and durability of the structure. In order to ensure consistent quality of rebars, the NIT approving authority may prescribe reputed brands like SAIL, RINL, Tata, JSW, JSPL in the list of preferred makes. Only corrosion resistant steel rebars shall be used.

(दिवाकर अग्रवाल)
अधीक्षण अभियंता(टास)

Issued from file No.CSQ/SE (TAS)/EE (TAD)/Steel/2021/503Q0

केलोनिवि तथा लोनिवि दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु(केलोनिवि वेबसाईट के माध्यम से)।

भारतीय राष्ट्रीय राजमार्ग प्राधिकरण
(सड़क परिवहन और राजमार्ग मंत्रालय)
**National Highways Authority of India**
(Ministry of Road Transport and Highways)
जी-5 एवं 6, सेक्टर-10, द्वारका, नई दिल्ली-110075
G-5 & 6, Sector-10, Dwarka, New Delhi-110075

दूरभाष / Phone : 91-11-25074100/25074200
फैक्स / Fax : 91-11-25093507 / 25093514

(4)

NHAI/TIC/PQ/2021-13/582

Date: 19.05.2021

Office Memorandum

To,

All ROs & PDs
National Highways Authority of India

Sub: **Simplifying the process of product approval in NHAI**

A number of references for simplifying the process of procurement of products in NHAI projects were received. In order to avoid the need of repeated source approvals for the same product, every time in different NHAI projects, a list of 11 products has been approved as one time source approval, subject to fulfilment of following conditions:

(a) Submission of MTC (Manufacturers Test Certificate) along with Third Party Test Reports from NABL accredited Laboratory for individual projects.

(b) Field tests of individual batch/lots to be carried out before allowing the material to be used.

(c) In addition to the approved list, any manufacture/supplier meeting the prescribed standards can also approach the project site and be considered for source approval as per the laid guidelines for the project/material.

2. The list of shortlisted Manufacturers/Providers for one time source approval, of all the 11 products is attached herewith. It is also mentioned here that changes in the list, if any, with respect to the addition/removal of any product/vendor will be notified.

3. This issues with the approval of Competent Authority.

Encl: As above.

Sabharwal 19/5/2021

(Ajay Kumar Sabharwal)
GM (T/SRD&Q)

Copy to: *for information* -
(i) Sh. B. L. Rawat, M/s CEG
(ii) Sh. K. Srinivas Rao, M/s Arvee Associates
(iii) Sh. N. Subrata Singh, M/s AECOM
(iv) Sh. Swapan Bagui, M/s ICT
(v) Sh. M. S. Rawat, M/s AECOM
(vi) Sh. Rajesh Choudhary, Under Secretary (Highways), MoRTH

| S. No. | Material/Product | Company / Agency / Brand Name | | | | | |
|---|---|---|---|---|---|---|---|
| | | Company 1 | Company 2 | Company 3 | Company 4 | Company 5 | Company 6 |
| 1 | Cement (OPC & PPC ) | Ultratech | J K super/ Laksmi | Wonder | Shree cement | Birla/Mangalam Cem ent | |
| 2 | Reinforcement Steel | JSW/ JSPL Stee l | TATA | SAIL | RINL | Shyam Steel | |
| 3 | Bitumen VG 30/VG 40/ PMB | IOCL | HPCL | BPCL | MRPL | | |
| 4 | Emulsion (RS & SS) | Hindcol | Tiki Tar Shell India Ltd | ACU road crafts | M/s Jainidhi B itumen Specia lities Pvt.Ltd | IWL | IOCL |
| 5 | Presstressing Steel ( HT Strands) | Usha Martin | Tata | DP Wire | Kataria | | |
| 6 | Presstressing Duct/ Material/ Agency | Dynamic | M/s Tensa | Usha Martin | Kataria | | |
| 7 | RE Wall agency (Des ign and Supply) | Meccaferri | Geosys | M/s. Strata Geosys tems | Geo Source | | |
| 8 | Geogrid/ Geotextile /Geosynthetic | Meccaferri | Maruti Rub-Plast Pvt. Ltd | Geosys | M/s. Strata G eosystems | M/s Techfab India | |
| 9 | Bridge Bearing (POT cum PTFE/Spherical / Elastomeric) | M/s Mageba Pr oducts | M/s Kantaflex Indi a | JK Steel Auto Indus tries | M/s Dynamic | M/s Hercules | M/s Sanfield |
| 10 | Expansion Joints (M odular / Strip Seal) | M/s Kantaflex I ndia | M/s Hercules struc tural | M/s Sanfield | Deevin Engineering | M/s Mageba Products | |
| 11 | Metal Beam Crash B arrier (W-Beam /Th rie Beam | G R Infraprojec ts Ltd | Utkarsh Tubes & P ipes | Jindal (India) limit ed | M/s Safety First | | |