

BY- EMAIL



GOVERNMENT OF INDIA
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
(An ISO 9001:2008 certified Ministry)
S&R (P&B) Zone

IAHE, A-5,
Institutional Area,
Sector-62, NH-24 By pass,
Noida-201301 (U.P).

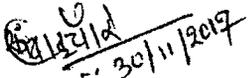
F.No.RW/NH-33031/02/2017/S&R (R)

30th November, 2017

OFFICE MEMORANDUM

Subject: Minutes of the Meeting of the Coordination Committee to select new material/new technology for use on National Highways.

The undersigned is directed to enclose herewith Minutes of the Meeting of the Coordination Committee held on 21st November, 2017 to select new material/new technology for use on National Highways.


(Dr. Sanjay Wakchaure)
SE, S&R (P&B)

Copy to:

1. All the Promoters of new material/new technology (as per Annexure-II)
2. All the Co-ordination committee members:
 - i. Shri Manoj Kumar, DG (RD) & SS – In Chair
 - ii. Shri Y. Balakrishna, CE S&R (P&B) – Member
 - iii. Shri A.K. Nagpal, CE (Zone-III) -Member
 - iv. Shri S.K. Nirmal, Secretary General - Indian Roads Congress -Member
 - v. Dr. Sanjay Wakchaure, SE, S&R (P&B) — Member Secretary
 - vi. Shri Sanjeev Kumar, SE, S&R (P&B)- Special Invitee
3. NIC with a request to upload on Ministry's web-site under "What's new" and heading as mentioned in the subject above.

Copy for information to:

1. PPS to Secretary (RT&H)
2. Shri S.R. Tambe, Ex. Secretary PWD, Maharashtra
3. Prof. Ravi Sinha, IIT Mumbai

Minutes of the Meeting of the Coordination Committee held on 21st November, 2017 to select new material/new technology for use on National Highways -

A Meeting of the coordination committee was held under the Chairmanship of DG (RD) & SS on 21st November, 2017 to select new material/new technology for use on National Highways. The list of members present is at **Annexure-I**.

The Chairman welcomed the participants and briefed regarding the new material/technology. A discussion was held to select new material/new technology for use on National Highways on the basis of suggestions by the Chairman that CE, SR&T (R) shall review the proposals in the first instant before putting up to this committee. Accordingly, the proposals have been reviewed by CE, SR&T (R) during meetings & presentations held on 11.07.2017, 08.09.2017 and 19.09.2017 which were presented and discussed by the committee. It was brought to notice that the MoRTH has also reconstituted nine-member National Panel of Experts (NPE) for approving proposals for use of new technologies, material and equipment in highway sector vide OM No. RW/NH-34072/1/2015-S&R(B)- (pt.) dated 03.10.2017. The constituted panel is chaired by Shri S..R. Tambe, Former Secretary, PWD Maharashtra and co-chaired by Prof Ravi Sinha, IIT Mumbai. It was also opined by the committee that the accreditation of the materials is already being done by Indian Road Congress. Hence Ministry is not required to do the accreditation of new material/new technology as this leads to duplication of work. After deliberations it was decided that all the proposals of new materials & techniques shall first be accredited by Indian Road Congress (IRC). After the accreditation of new materials and techniques by IRC, the National Panel of Experts (NPE) under the chairmanship of Shri S.R. Tambe will examine the proposals, and send for consideration before the Coordination committee chaired by DG (RD) & SS, MoRTH in accordance with Ministry's letter No. RW/NH-34072/1/2015-S&R(B) dated 08.11.2017 for final decision. Further, the material, their description along with recommendation of committee is placed at **Annexure-II**.

A meeting ended with thanks to the Chair.

List of Participants:

1. Shri Manoj Kumar, DG (RD) & SS
2. Shri Y. Balakrishna, CE S&R (P&B)
3. Shri S.K. Nirmal, Secretary General, IRC
4. Shri Sanjeev Kumar, SE, S&R (P&B)
5. Dr. Sanjay Wakchaure, SE, S&R (P&B)
6. Shri Shovit Shubham, GE, S&R (P&B)

New Materials & Techniques

Minutes of the Meeting dated 21st November, 2017

Sl. No	Name of the Firm	Materials and its descriptions	Recommendation of the committee
1.	Valmont Structures Pvt. Ltd.	Ezy Guard Smart System (W Beam System) –It is a Metal crash barrier which has better Strength and flexibility. The product has been tested for TL3 of Manual of Assessing Safety Hardware (MASH). Z Post profile of the system shields post edges from vulnerable road user and provides sectional strength. It will be manufactured and supplied from Pune in India. The product is not IRC accredited. All the test is being carried out in abroad. Further, they are willing to demonstrate the performance of these barrier by installing on pilot project.	W Beam System metal crash barrier is not a new material. Hence need not be accredited.
2.	Terrazyme India	Terrazyme, a bio enzymatic soil stabilizer for the construction of roads improves workability and imparts additional strength to soil. IRC has also accredited terrazyme. It has been successfully executed in rural roads in Karnataka, including all weather roads in the Western Ghats, including black cotton soil etc. The product is imported.	It is already IRC accredited. Hence may be considered by National Panel of experts (NPE).
3.	ACO Systems and Solutions Pvt. Ltd.	Prefabricated Drainage System for Roads and Highways—Surface water management system. The system benefits stated by promoters are load bearing drainage system for highways, space saving drainage system, Aesthetically beautiful solution with drain channels and grating, Easy maintenance, Effective silt	Proposal may be send to IRC for accreditation.

		management with silt chambers etc.. The product is not IRC accredited.	
4.	Vidharbha Multidimension al Business Venture Pvt. Ltd.	Land Lock Natural paving for soil stabilization is a US based manufactures environmental- friendly Vinyl Acrylic Copolymers with 55% solids. The products (LL25 and LL 30) are organic, non-toxic, non-hazardous. It also increases CBR of subgrade. The product is imported. It is not accredited by IRC. It is not used in India nor any performance report in India. All the test is being carried out in abroad.	Proposal may be send to IRC for accreditation.
5.	STP Limited	ShaliSeal RSTC- Is Coal Tar Based emulsion. The promoter has narrated that RSTC is polymer Modified waterproof UV Resistant Sealer Coat for Roads. Which prevents ingress of water and thereby enhancing the quality of roads. It can seal cracks up to 1mm and small pores in roads. It is a two coat system. The product is IRC accredited.	It is already IRC accredited. Hence may be considered by National Panel of experts (NPE).
6.	Owens-Corning (India) Private limited	The representative gave presentation and brief out their product Hybrid Geo Synthetic Non-Woven glass fibre paving Mat "TruPave". It is stated that their product may replace <u>mastic asphalt</u> . Their product has more strength and durability as compared to SAMI. The weight of TruPave is 136 GSM (gram per square meter), its melting temperature is 200 degrees centigrade. The product is IRC accredited in 2010. The promoter stated that their material and bitumen when mixed together forms an impermeable layer. The material also reduces crackers within the pavement structure. The material has been used in stretches of Delhi Noida Direct (DND). It is also to mention that the above	Paving material has already been included in MoRTH Specifications for Road and Bridge Works. Hence it cannot be treated as new material therefore need not be accredited.

		mentioned paving material has already been included in MoRTH Specifications for Road and Bridge Works (Fifth Revision) in section 701.1 in sub para (ix) under subheading Paving Fabrics and Glass Grid.	
7.	RT ETI Environtech Private Limited	The representative gave presentation and brief out their product "Safety roller Barrier". The product is specially designed which gives safety to the passenger and minimizes the damages in vehicle accidents. The main function of the roller system is to change the direction of vehicle which when hit to roller barrier. The roller barrier is made of barrel which is high density polymeric shock absorbing made from EVA, which has excellent flexibility has high strength and great shock absorbing, durable in compression and luminous in the dark. All the test is being carried out in abroad.	Proposal may be send to IRC for accreditation.
8.	Safety Product NV	A web conferencing with Ms. Willems from Belgium was conducted on ZIP Pole is a steel energy absorbing pole for street lighting, designed with the advantage of being passive safe in a car crash, to save lives. By its design, the ZIP Pole will bend in a car crash, slow down the colliding car and it will absorb the energy of the shock. The passive safe column ZIP pole saves lives. In case of an impact, the strong conical shape changes into a soft ribbon. While the pole yields the speed of the vehicle gets slowed down accordingly. ZIP poles are the fastest energy absorbing columns, is approved according to EN40, EN12899 and EN12767. The product is not IRC accredited. All the test is being carried out in abroad.	Proposal may be send to IRC for accreditation.
9.	Zydex Nanotechnology	(i) (Zycotherm - Moisture Resistant Sustainable Roads): The promoter presented a nanotechnology based	A three-member committee namely Shri V.K Rajawat, Shri Sanjeev Kumar, Shri Alok Deepankar has

		<p>material (manufactured in Gujarat, India) which chemically modifies water absorbing aggregates into bitumen oil loving surface, thereby better bonding with bitumen and higher strength and flexibility. Its advantages also include higher life, low maintenance, low initial cost etc.</p>	<p>already been constituted to examine the proposals. It shall be considered on the basis of report submitted by the committee. It is already IRC accredited after receiving report from committee may be considered by National Panel of experts (NPE).</p>
		<p>(ii) Terrasil (Soil Stabilization and Breathable Waterproofing Road Bases): The promoter stated that the waterproof soil base using Terrasil makes soil more impermeable to water at the cost of Rs. 8 meter square. Per layer. This increases soil stabilization. reduces expansivity by 90%.</p> <p>The above mentioned two proposals were considered in the meeting held on New Material/Technology dated 09.09.2016, 22.09.2016 and 10.11.2016, comments from committee was Feedback from NHAI/Contractors /PWDs to be submitted by the promoter for further consideration. The same has been submitted and the promoter showed examples of roads constructed using this technology in Leh, Udaipur etc</p>	<p>Proposal may be send to IRC for accreditation.</p>
10.	Bajaj Reinforcements LLP	<p>Micro Synthetic fibre (Fibrillated Polypropylene) These fibres shows improvement in densification of concrete due to reduction in shrinkage cracks. Its specific gravity is 0.91. As per Ministry's specification only fibre with specific gravity greater than 1 are allowed. A high power committee was constituted. The representative of IRC, CRRI and IIT, Hyderabad has send their comments and recommends to be part of specifications as per revised IRC 15-2017 (under print) the requirement criteria set forth for specific gravity of fibres is modified to 0.9 to 1.36.</p>	<p>A circular regarding amendment/ modification in specification of MoRTH para 602.2.5 by including polypropylene fibres having specific gravity 0.9. above and to be dealt on corresponding file.</p>

11.	Dolphin Floats Pvt. Ltd.	<p>Strongcrete- is a 100% Virgin Polypropylene Fibre Mesh Additives for Concrete. The promoter states that its advantage is Road service life improvement, improvement in impact resistance, improvement in flexural strength, improvement in abrasion resistance, improvement by reduction in permeability. He further states road quality service life increases, thus cost of repairs, cost of disruption of national traffic etc are reduced. The Product is manufactured in India. It is IRC accredited. As per Ministry's specification only fibre with specific gravity greater than one are allowed. A high power committee was constituted. The representative of IRC, CRRI and IIT, Hyderabad has send their comments and recommends to be part of specifications as per revised IRC 15-2017 (under print) the requirement criteria set forth for specific gravity of fibres is modified to 0.9 to 1.36.</p>	<p>A circular regarding amendment/ modification in specification of MoRTH para 602.2.5 by including polypropylene fibres having specific gravity 0.9 and above. To be dealt on corresponding file.</p>
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