



GOVERNMENT OF INDIA
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
(AN ISO 9001:2008 CERTIFIED MINISTRY)
SR&T (R) ZONE

IAHE Campus
A-5, Sector 62
Noida - 201301

F. No. RW/NH-35075/01/2010/S&R(R)

Date: 21st December, 2016

OFFICE MEMORANDUM

Subject: Minutes of the meeting of the Coordination Committee on new materials/new technology for use in construction of National Highways held on 09.09.2016, 22-09-2016 and 10.11.2016.

Please find enclosed herewith the Minutes of the meeting of the Coordination Committee on new materials/new technology for use in construction of National Highways held on 09.09.2016, 22-09-2016 and 10.11.2016 for kind information please.

Encl. : As stated above.

Manoj Kumar
(Manoj Kumar)
Executive Engineer (S, R&T) (Roads)
For Director General (Road Development) & SS

To

A. All the members of the Committee

1. Coordinator-I
2. CE, SR&T(R)
3. CE (Projects) – Sh. A. K. Nagpal, CE (NHDP-IV)
4. SE, SR&T(B) – Sh. S. K. Nirmal
5. Secretary General, Indian Roads Congress
6. SE, SR&T(R)

B. Copy for kind information to: PPS to DG (RD) & SS

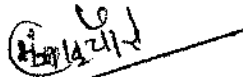
C. Copy to All promoters of New Material/ New Technologies

D. NIC- with the request to upload on Ministry's website.

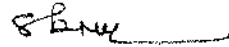
Minutes of Meeting of Coordination Committee to select New Materials/New Technologies for use on National Highways held on 9th September, 2016, 22nd September, 2016 and 10th November, 2016

Three meetings of the Coordination Committee to select New Materials/New Technologies for use on National Highways were held 9th September, 2016, 22nd September, 2016 and 10th November, 2016. The list of the participants of the meetings is at **Annexure-I**.

In all 19 proposals were received from 12 promoters out of which three did not attend. The promoters of New Materials/New Technologies made a presentation about their products/technologies before the committee. The details of the decisions taken by the Committee after deliberations are at **Annexure-II**.



(Dr. Sanjay Wakchare)
Superintending Engineer, SR&T (R)
Member Secretary



Shri S. K. Nirmal
Superintending Engineer, SR&T(B)
(Member)



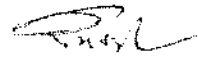
Shri A. K. Nagpal
Chief Engineer, (NHDP-IV)
(Member)



Shri S. S. Nahar
Secretary General, (IRC)
(Member)



Dr. Sunil Kumar Verma
Chief Engineer, SR&T(R)
(Member)



Shri R. K. Singh
Coordinator-I
(Chairman)

Annexure-I

List of the participants of the Meeting of Coordination Committee to select New Materials/New Technologies for use on National Highways held on 9th September, 2016, 22nd September, 2016 and 10th November, 2016

1. Shri Satish Nadkarni, TIKI Tar Group
2. Shri Sanjay Goel, M/S Descon Infrastructure Pvt. Ltd.
3. Shri Sant Kumar, M/S Descon Infrastructure Pvt. Ltd.
4. Shri Sushil I. Kathar, Penetron India Pvt. Ltd.
5. Shri Pratap Singh Rantela, Penetron India Pvt. Ltd.
6. Shri William Dean, Deans Infrastructure Pvt. Ltd.
7. Shri Nitin Manawat, V V Autotest System Pvt. Ltd.
8. Shri Sumit Gudesar, Zydex Industries Pvt. Ltd.
9. Shri Manmeet Klahs, Sintex Industry Ltd.
10. Dr. Mrs. R. S. Manjrekar, Sunanda Specialty Coatings Pvt. Ltd.
11. Ishita Manjrekar, Sunanda Specialty Coatings Pvt. Ltd.
12. Shri Kartik Kanodia, Manas Geo Tech India Pvt. Ltd.
13. Shri R. P. Panda, Superintending Engineer, (NHDP-IV)
14. Shri Manoj Kumar, Executive Engineer, SR&T (R)
15. Shri Amiyanshu, Assistant Executive Engineer, SR&T (R)



New Materials & Techniques

MOM Dated 9th September, 2016, 22nd September, 2016 and 10th November, 2016

Sl. No.	Name of the provider	New Materials & Techniques	Remarks
1	Tiki Tar Group	ASPHALTOSEAL It is a 3mm Mastic Pad for use on Elevated Bridge Decks	IRC accredited. May be use in lieu of Mastic Asphalt. May be added to the list of New materials.
2		STRESEAL It is a polymeric composite pad to be used on DBM./concrete surfaces for absorbing stress and hence preventing reflective cracks	Already in specification. IRC accredited. Feedback relating to cost effectiveness to be submitted by promoter for further consideration.
3		TIKI ezREPAIR COMPOUND/ PRE-MIX for Instant Pot-Hole Repairs. It is a pavement repair material used in maintenance work manufactured from a mixture of graded aggregates and modified bitumen.	May not be considered as new material.
4		Anti-Stripping Agent Used in bitumen mix to enhance aggregate bonding and prevent stripping	May not be considered as new material.
5		HYDROSTOP is a machine compacted multi-layer membrane for waterproofing roofs, retaining walls, decks, footing etc.	May not be relevant to roads. Need not be included in the new material list.
6		TIKI Bitumen Emulsion VG40 Bitumen 10/20	May not be considered as new material.
7		Tiki Exjofillers: Filler boards that are used in expansion joints of rigid pavements	May not be considered as new material.

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8	Hill and Smith Infrastructure	Wire rope safety barrier (3-rope system and 4-rope system) to avoid accidents on highways. They asserted that this technology is more cost efficient as compared to metal beam crash barrier, and has been recognized internationally.	Not attended the meeting.
9	Petrotech Processors	Centron fibres (wood-based) which may be used with bituminous pavements. Citing test reports conducted at CSRL – Structwel lab, Pune, the promoter asserted that the use of fibres improves the properties of bituminous concrete and is economical.	Not attended the meeting.
10	Descon Infrastructure	Stone Matrix Asphalt (SMA) is resistant against permanent deformation and any thermal and reflective cracks. It has a long life cycle and is thus more economical in long run. The promoter stated that their firm helps the Contractors in the Mix Design.	Stone Matrix Asphalt is already in the MoRTH specifications (Section 515). Feedback relating to cost effectiveness with rigid pavement along with feedback from foreign countries to be submitted by promoter.
11	V V Autotest System	Base Seal Soil Stabilizer which is used to construct base for road and other infrastructure. The promoter asserted that Base Seal has been used successfully in foreign countries like USA, China, Spain, Nigeria etc. for construction of base eliminating the use of aggregates.	Not IRC accredited. May be considered after accreditation.
12	Supreme Petrochem	Expanded Polystyrene (EPS) Geofoam , very low density (~18-45kg/ cub. Mtr.) Manufactured from resin. It has multiple applications like in roads over soft soils, slope stabilization, bridge underfill, culverts etc.	Not attended the meeting.
13	Dean Infratech Pvt. Ltd.	Dean Infracrete Eco-friendly Soil stabilization and binding agent. It is a powder mineral used as admixture in Portland Cement Concrete (PCC). Its advantages over traditional stabilization include saving of materials, less transportation of unsuitable soil, heavy load capacity, high durability, more impermeability, acid and salt resistance, environmental friendly, low cost etc.	IRC accredited. CRRI approved feedback regarding the durability and reports of leaching and toxicity to be submitted by the promoter for further consideration.



14	Zydex Industries Pvt. Ltd. –	Zydex Nanotechnology (Zycotherm - Moisture Resistant Sustainable Roads): The promoter presented a nanotechnology based 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. The promoter showed examples of roads constructed using this technology in Leh, Udaipur etc.	IRC accredited. Feedback from NHAI/Contractors /PWDs to be submitted by the promoter for further consideration.
15		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 per sq. m. per layer. This increases soil stabilization ~80-90 CBR and reduces expansivity by 90%.	Reports of leaching, chemical effects and permeability is to be submitted by the promoter promoter for further consideration.
16	Manas Geo Tech India Pvt. Ltd.	Non-woven Geotextile fabric: The promoter presented non woven geotextile fabric based on needle punched or thermally bonded form of polypropylene or polyester yarns. Its advantages were stated as high water permeability, optimum filtration performance, extreme resistance against installation damage, high protection efficiency etc. Its applications are in RE walls and steep slopes, separation, filtration and construction of tunnels	Already in the specifications.
17	Penetron India Pvt. Ltd.	Penetron Concrete Crystallization System Waterproofing and Durability of Concrete Roads, Bridges, Flyovers & Highways. The crystalline admixture helps in waterproofing of concrete structures and shows better performance than colloidal silica admixture and hydrophobic pore blocking admixture and can increase the lifetime of concrete. The material is more applicable for structures bearing high hydrostatic pressure.	IRC accredited. May be included under permeability reducing crystalline admixtures



18	Sunanda Specialty Coatings Pvt. Ltd.	POLYALK CP 293 Bipolar Concrete Penetrating Corrosion Inhibiting Mixture. The product is bipolar, non-nitrite, concrete penetrating admixture that protects reinforcement bars from corrosion induced by chloride as well as carbonation of concrete.	IRC accredited. May be included under corrosion inhibiting admixtures.
19	Sintex Industry Ltd.	Sewage System Innovation for Toll Plazas and urban reaches The products include digester tanks/septic tanks at road construction sites and toll plazas toll plazas for toilet amenities.	May not be considered as new material or technique to be used in road & bridge construction.

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