

Tele: 23793509 /35763 (A)
Fax: 23793541/23794549

Policy letter No 02/2007
Directorate General Married
Accommodation Project
E-in-C's Branch,
Integrated HQ of MoD (Army)
Kashmir House, Raja Ji Marg,
DHQ PO, New Delhi-110 011

21316/PIPES/P&S/ 130 /MAP

01 Mar 2007

All Executing Agencies (List A)
All DEPMC and Review Consultants (List B)
All Project Managers/Technical Advisers (List C)

USE OF uPVC PIPES IN MAP

1. GI pipes are prone to corrosion and often require replacement after 15 – 20 years. Phenomenon of corrosion is more predominant in coastal areas and areas where water contains high total dissolved solids (TDS). With the steep rise in prices of steel, provisioning of GI pipes is not as cost effective as it was earlier. Moreover, with the advancement and development in polymer technology, polyethylene pipes have been widely accepted due to their low cost, higher durability, longer life and better hydraulic characteristics.

2. Accordingly after techno-economic evaluation by DG MAP Product Approval Committee, following specification/product for MAP Phase I have been approved: -

Rainwater Pipes and Fittings. uPVC pipes as per IS: 4985 of Finolex / Supreme / Jain Irrigation / Ori-Plast / Reliance are approved for incorporation in MAP works.

3. The EA or its deployed contractor along with the PMs/TAs will obtain a manufacturer's certificate confirming that the product has been tested as per the IS:4985 and ensure that the product meets all the desired standards. Also, the PM/TA will get a random check of the sample of the product, so obtained from the Contractor/the Firm through a Govt/NABL accredited Laboratory, in order to ensure receipt of quality product at site, for incorporation in the MAP works.

4. Executing Agencies / Consultants / PMs and TAs would ensure that quality / genuine products are incorporated and mandatory tests for assuring qualitative standard are carried out. Record of the same shall be maintained. Performance feedback shall be submitted by Project Managers/Technical Advisors during execution and defect liability period. Defects/discrepancy, difficulties noticed shall also be promptly reported to HQ DG MAP for considering continuation of the products for MAP Phase II.

5. For further technical details of the products, samples may be obtained in due course from the manufacturers as given at Appendix attached. Consequent to evaluation, approval of additional firms manufacturing above / identical products, shall be communicated.

6. Executing Agencies and Planning Teams of DG MAP are requested to ensure provisioning of uPVC pipes in the project DPRs. For projects where DPRs are approved, provisioning may please be ensured at tender stage. For projects where contracts have been concluded, changes shall be carried out on case-to-case basis, depending upon contractual implication, financial health, present progress of the project; in close coordination with and prior approval of Planning Team of DG MAP.

7. On issue of this policy letter, the previous policy letters issued vide DG MAP letter No. 21316/PIPES/P&S/42/MAP (Policy Letter No. 02/2005) dt 04 Feb 2005, amendment issued vide letter No. 21316/PIPES/P&S/62/MAP dt 22 Nov 2005, and policy letter No 21316/Pipes/P&S/127/MAP dt 17 Jan 2007 (Policy No 01/2007), are hereby superseded.

(Aalok Sood)
Col
Dir (Pol & Standardization)
for DG MAP

Encls: Appendix

Internal

Plg Team 'A' Plg Team 'B' Contract Section Plg Team A Contract Section Plg Team B	}	- for information and necessary action please.
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DETAILS OF MANUFACTURERS

uPVC PIPES

1. M/s Finolex Ltd
Bombay Pune Highway
Pimpri, Pune

2. M/s The Supreme Industries Ltd
518, Osian Building,
12 Nehru Place,
New Delhi-110 019
(Fax No **011-26480699**)

3. M/s Jain Irrigation Systems Ltd
Jain Plastic Park,
P.O. Box 72,
Jalgaon – 425 001
(Fax No **0257-2258111/22**)

4. M/s ORI-PLAST Limited
A-285, Defence Colony
New Delhi-110 024
(Fax No **011-51552025**)

5. M/s Reliance Industries Ltd
Reliance house
15, Walchand Hirachand Marg
Ballard Estate, Mumbai-400 038
(Fax No **022-30327399**)

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21316/PIPES/P&S/ 131 /MAP

01 Mar 2007

All Executing Agencies (List A)
All DEPMC and Review Consultants (List B)
All Project Managers/Technical Advisers (List C)

USE OF CPVC/GI/COMPOSITE PIPES IN PLUMBING SYSTEM-MAP

1. Polyethylene pipes are being widely used in construction industry as a substitute to GI plumbing, which is prone to corrosion and requires replacement after 15-20 years. Hence, techno - economic evaluation has been carried out by DG MAP Product Approval Committee for use of polyethylene materials / products in plumbing systems.

2. It has been evaluated that CPVC / Composite plumbing system is corrosion resistant, has longer life, provides improved hydraulics and is simple in maintenance besides being energy efficient. The piping is rigid and durable, while jointing is as per standard engineering practice. The plumbing is cost effective, both in terms of initial cost and life cycle cost.

3. After techno-economic evaluation by DG MAP Product Approval Committee, following specifications / product for MAP Phase I have been approved: -

(a) **CPVC Pipes.** For internal plumbing/hot and cold water supply (upto 40mm dia); CPVC pipes SDR-11 (as per ASTM D- 2846) with CPVC specials (brass threaded) and CPVC cement solvent (confirming to ASTM F- 493) of ASTRAL/Saumya Polymer have been approved for incorporation in MAP. Manufacturers test certificate as per tests enumerated in IS:12235-1986, shall be insisted on delivery of material.

(b) **GI/Composite Pipes.** For internal plumbing / hot and cold water supply i.e. up to 40mm dia, GI medium grade pipe (Tata / Jindal) with anti-corrosive coating and composite pressure pipes (PE – AL – PE), with compression / crimp fittings as per IS: 15450-2004 / ISI marked, of Kitec Industries India Ltd, Jindal composite tubes pvt Ltd and Kesara Syntex Pvt Ltd (Kesara Plast), have been approved for incorporation. The internal i.e. the distribution pipes will be composite, both in pipe and its fittings. The pipes used will be black in colour, conforming to clause 7 of IS: 15450-2004 and will be of the sizes 1216 (12mm internal and 16mm outer) and other requisite sizes of 1620, 2025, required for usage in the internal plumbing.

4. The EA or its deployed contractor along with the PMs/TAs will obtain a manufacturer's certificate confirming that the products have been tested as per the relevant IS i.e. (IS:12235-1986 and IS: 15450-2004 for CPVC and composite pipes, respectively; and ensure that the product meets all the desired standards. Also, the PM/TA will get a random check of the sample of the product, so obtained from the Contractor / the Firm, through a Govt/NABL accredited Laboratory, in order to ensure receipt of quality product at site, for incorporation in the MAP works.

5. Executing Agencies / Consultants / Project Managers and Technical Advisors would ensure that quality / genuine products are incorporated and mandatory tests for assuring qualitative standard are carried out. Record of the same shall be maintained. Performance feedback shall be submitted by Project Managers/Technical Advisors during execution and defect liability period. Defects/discrepancy, difficulties noticed shall also be promptly reported to HQ DG MAP for considering continuation of the products for MAP Phase II.

6. For further technical details of the products, samples may be obtained in due course from the manufacturers as given at Appendix attached. Consequent to evaluation, approval of additional firms manufacturing above / identical products, shall be communicated.

7. Executing Agencies and Planning Teams of DG MAP are requested to ensure provisioning of CPVC/GI/Composite pipes, as per the configuration of the building / the technical requirement of the site, in the project DPRs. For projects where DPRs are approved, provisioning may please be ensured at tender stage. For projects where contracts have been concluded, changes shall be carried out on case-to-case basis, depending upon contractual implication, financial health, present progress of the project; in close coordination with and prior approval of Planning Team of DG MAP.

8. On issue of this policy letter, the previous policy letters issued vide DG MAP letter No. 21316/PIPES/P&S/42/MAP (Policy Letter No. 02/2005) dt 04 Feb 2005, amendment issued vide letter No. 21316/PIPES/P&S/62/MAP dt 22 Nov 2005, policy letter No 21316/Pipes/P&S/63/MAP dated 27 Dec 2005 (Policy No 22/2005), and policy letter No 21316/Pipes/P&S/127/MAP dt 17 Jan 2007 (Policy No 01/2007), are hereby superseded.

(Aalok Sood)
Col
Dir (Pol & Standardization)
for DG MAP

Encls: Appendix

Internal

Plg Team 'A'
Plg Team 'B'
Contract Section Plg Team A
Contract Section Plg Team B

} - for information and necessary action please.

DETAILS OF MANUFACTURERS

CPVC Pipes

1. M/s Astral Polytechnik Pvt Ltd
901, Parshwa Tower,
Sarkhej-Gandhinagar Highway
Ahmedabad- 380 054
Fax No 079-26872214
Mob: 09810518031
2. M/s Saumya Polymers Pvt Ltd
79, Nehru Park, Vastrapur
Ahmedabad-380 015
Fax No 079-26752909

COMPOSITE PIPES AND FITTINGS

1. M/s Kitec Industries (India) Ltd
C-18/11, Jeevan Beema Nagar
Borivali (W), Mumbai-400 103
Fax No: 022-28942549
Mob: 09820051464
2. M/s Jindal Composite Tubes Pvt Ltd.
203, Vikram Towers, Rajendra Palace
New Delhi-110008
Tel: 011-41538501-02,
Fax-011-41538503)
3. M/s Kesara Syntex (Kesara PLast) Pvt Ltd.
Kesara House, A-50, Mangolpuri,
Industrial Area, Ph-II, Delhi-110034
Tel: 011-27015557
Fax: 011- 27032632