

Schedule A – Tender Specifications**Toilet Rolls**

1. General characteristics : Creped; white colour tissue, generally free of foreign matters, stains, holes, abrasive materials, dust and unpleasant odours. Soft but does not disintegrate when used. Dissolves readily in liquid/water after usage. (Please refer to page 5 of Testing Parameters for testing.)
2. Production standard : Should meet the requirements in Table 3 of GB20810-2006 (or latest version) according to the testing method as specified in its Appendix A.
3. Green requirements :
 - (a) The toilet paper must contain by weight 100% recovered fibre* and that recovered fibre* must contain not less than 60% post-consumer fibre#.
 - (b) Bleaching agent used in pulp/paper production, if necessary, must not contain chlorine.
 - (c) Surfactant used in pulp/paper production, if necessary, must be biodegradable.
 - (d) The core, paper wrapping and carton box packaging must be made from 100% recovered fibre*.

(Please refer to page 4 of Test/Verification Methods).
4. Tensile strength : Minimum 3.5N . m/g
5. Grammage : 17 to 23 grammes per square metre
6. Ply : Double ply
7. Size of sheet : Preferably at 110 millimetre (mm) wide x 120 mm long
8. Number of sheets per roll : Approx. 250 sheets per roll
9. Total length per roll : 35 metres ± 3.5 metres
10. Perforation : Well perforated between sheets which shall be easily and clearly separated along the perforations.
11. Core : The core of each roll shall be made of strong cardboard containing 100% recovered fibre* with internal diameter of about 40 mm.

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12. Net weight per roll : Not less than 130 grammes
(Excluding cardboard core)
13. Wrapping : Each roll to be securely wrapped with paper made from 100% recovered fibre*.
14. Packing : To be packed in strong cartons made from 100% recovered fibre*, preferably with 100 rolls in each carton. The cartons must be strong enough for storage and transit.

Note : All the above are mandatory requirements, except those underlined which are desirable features.

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Definitions/Terms

* Recovered fibre means :

- Postconsumer fibre[#]; and/or
- Manufacturing waste such as :
 - Dry paper and paperboard waste generated after completion of the papermaking process; and
 - Repulped finished paper and paperboard from obsolete inventories of paper and paperboard manufacturers, merchants, wholesalers, dealers, printers, converters, or others; and
- does not include mill broke[^].

Postconsumer Fibre

- Paper, paperboard and fibrous waste from retail stores, office buildings, homes and so forth, after they have passed through end-usage as a consumer item, including used corrugated boxes, old newspapers, old magazines and mixed waste paper; and/or
- All paper, paperboard, and fibrous waste that enter and are collected from municipal solid waste.

N.B. Postconsumer fibre does not include fibre derived from printers' over-runs, converters' scrap and over-issue publications.

[^] Mill Broke

Any paper waste generated in a paper mill prior to completion of the papermaking process. It is usually returned directly to the pulping process.

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Test/Verification Methods of Green Requirements

Green Requirements	Test/Verification Methods
<p>The toilet paper must contain by weight 100% recovered fibre and that recovered fibre must contain not less than 60% post-consumer fibre.</p>	<p>Submission of a copy of a certificate/report from an independent accredited laboratory / surveyor certifying the compliance of the recommended environmental specifications.</p>
<p>Bleaching agent used in pulp/paper production, if necessary, must not contain chlorine.</p>	<p>Submission of a copy of a test report basing on the American Society for Testing and Materials (ASTM) D2022-89(2008) Standard Test Methods of Sampling and Chemical Analysis of Chlorine-Containing Bleaches from an independent accredited laboratory showing compliance of the recommended environmental specifications; or Submission of a copy of a certificate from an independent surveyor certifying the compliance of the recommended environmental specifications.</p>
<p>Surfactant used in pulp/paper production, if necessary, must be biodegradable.</p>	<p>Submission of a copy of a test report basing on the Organization for Economic Co-operation and Development (OECD) 301 A-F Ready Biodegradability Tests from an independent accredited laboratory showing compliance of the recommended environmental specifications; or Submission of a copy of a certificate from an independent surveyor certifying the compliance of the recommended environmental specifications.</p>
<p>The core, paper wrapping and carton box packing must be made from 100% recovered fibre.</p>	<p>Submission of a copy of a certificate/report from an independent accredited laboratory / surveyor certifying the compliance of the recommended environmental specifications.</p>

Schedule A – Tender Specifications**Testing Parameters for Toilet Rolls**

Specifications	Acceptance Criterion	Test/Verification Method
1. General Characteristics	Creped (paper surface must not be smooth)	Visual inspection
	White colour	
	Holes (< 10 holes / 50 sheets)	
	Stains (< 20 stains / 50 sheets)	
	Resistance to disintegration when wet (Not retaining the disc-form)	Cut four toilet paper discs each of 5.5 cm diameter from separate sheets of a toilet paper sample. Shake the discs with distilled water separately for 10 min at a speed of 175 rpm.
2. Tensile Strength	Minimum 3.5N . m/g	Adopt GB/T 12914 under GB 20810-2006 (or latest version)
3. Grammage	17 to 23 grammes per square metre	By weighing with scale
4. No. of Ply	Double	Visual inspection
5. Size of sheet	Length : Preferably 120 mm Width : Preferably 110 mm	By measurement
6. Number of sheet per roll	Approx. 250 sheets	By counting
7. Total length per roll	Length : 35 m (\pm 3.5 m)	By measurement
8. Perforation	At least 8 out of 10 sheets may be separated easily and clearly at the perforation	Tear 10 sheets of toilet paper from the sample at an interval of 5.
9. Core	Internal diameter of about 40 mm	By measurement
10. Net weight per roll (Excluding cardboard core)	Not less than 130 g	By weighing with scale