



Confederation of Indian Industry



GreenPro Certification Standard for
**Plumbing Fixtures, Sanitaryware,
Clothes Washer and Dishwasher**

Pilot Version - 1

Knowledge partners:





**GreenPro Certification Standard for
Plumbing Fixtures, Sanitaryware, Clothes Washer
and Dishwasher**

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1. Introduction

The construction industry is one of the fastest growing sectors in India contributing significantly to the economic growth. At the same time, the rapid growth of the sector poses a host of challenges for preserving the environment and health of occupants. The Green Building Movement spearheaded by the Indian Green Building Council (IGBC) has enabled the construction industry to incorporate Green Building concepts for the enhanced economic, health and environment performance of buildings.

Thus far, the Council has been instrumental in enabling 6.67 Billion sq. ft. of green buildings in the country. The Green Building market growth has created demand for Green products & services. The demand is expected to grow exponentially in the future.

Against this background, the Green Products and Services Council (GPSC) of CII-Sohrabji Godrej Green Business Centre along with technical collaboration with Indian Plumbing Association (IPA) and IAPMO Plumbing Codes and Standards India Private Limited (known as IAPMO India) launched the GreenPro – Green Products Certification for Plumbing Fixtures, Sanitaryware, Clothes Washer and Dishwashers. The standard was developed with the support of all the stakeholders including product manufacturers, standard developers, architects, Green building developers, conformity agencies etc.

This standard encourages use of water efficient products to reduce the overall demand of water consumption in green buildings. It evaluates the product holistically on a life cycle approach to ensure minimal impact on the environment.

Why GreenPro Certification?

The GreenPro Certification is a tool for facilitating Green Product market transformation in the country. The GreenPro Certification is expected to:

1. Enable green building projects in selecting the right product and equipment
2. Increase the market demand for the Green products
3. Put a system in place for a product to be called 'green'

2. GreenPro Certification – Life Cycle Approach

GreenPro adopts a holistic approach based on the 'Life Cycle' of the product. GreenPro encourages the product manufacturers to implement measures that would result in environmental, health and wellbeing benefits at the following stages of the life cycle of the products.

1. Product Design
2. Procurement of Raw materials
3. Manufacturing
4. Use
5. Disposal / Recycling



3. Benefits

GreenPro certification benefits both the product manufacturers and the users. The benefits are both tangible and intangible.

For Product Manufacturers

Some of the benefits of GreenPro Certification for the product manufacturers are highlighted below:

1. GreenPro Certification differentiates the Green product from the competition
2. Increases the market reach out with credible and precise information on the Green features of the products
3. Enables Green product Innovation
4. Increases resources conservation through enhanced energy efficiency, water efficiency, use of renewable energy, minimization of waste etc., during the manufacturing process and hence enables increase in profitability
5. Acts as a driver for achieving environment excellence
6. Complements National & International Green Building Certification Systems

For Users

Use of GreenPro certified Green products leads to significant tangible and intangible benefits for the end users.

Some of the benefits for the users are highlighted as below:

1. Time and effort in carrying out due diligence in selecting a green product is saved
2. The user is assured of the performance of the product and equipment
3. Ensures Toxic and hazardous substances free products which in turn decreases “health and wellbeing” risks of the users
4. Improved product performance during use to reduce resource consumption and environmental impacts
5. Recognition and credits for achieving national and international Certification for the buildings

4. National Priorities addressed in Certification

GreenPro Certification addresses the following which are priorities of the Government at the National level:

Water:

Water is a major concern in most part of the country. Implementation of water efficiency measures through use of water efficient products and “zero Liquid Discharge” are being encouraged to address the water related issues.

Land:

Availability of land and increase in land pollution are major areas of concern. The Certification system demands for increased recycling of material after use which would result in reduction in landfills and hence reduction in land pollution.

Energy Efficiency:

The Certification system encourages the product manufacturers to adopt energy efficiency improvement measures and reduce their energy consumption which is in line with the National Mission on Enhanced Energy Efficiency.

Renewable Energy:

The Certification advocates compliance with Renewable Purchase Obligation (RPO) and encourages product manufacturers to invest in renewable power generation. This is in line with Government of India’s objective of increasing the contribution of renewable power sources.

A combination of improving energy efficiency and the use of renewable energy leads to support the government’s efforts on Climate Change issues.

5. Development of GreenPro Certification Standards

GreenPro Certification applies product specific '**Certification Standards**' for evaluating the products. The Certification Standards are developed with the support of respective product committees formed under the aegis of the Green Products and Services Council.

The product committee involves all major stake-holders related to the respective product category including product manufacturers, standard setters, conformity agencies, architects, users *et al.* The product committee is chaired by an expert who is also an unbiased specifier.

6.Features of GreenPro Certification

The Certification system follows prescriptive as well as performance based approach for evaluating a product. The Certification calls for demonstration of product performance through testing as per specified standards and implementation of measures at every stage of the Life Cycle of the product, leading to clearly measurable environmental benefits.

The Certification system evaluates green features for products based on various performance parameters grouped under the following Credit Modules.

- 1. Product Design:** The Certification necessitates the manufacturer to demonstrate its top management commitment towards improvement of the environmental performance of the product.
- 2. Product Performance:** The required performance parameters of the product need to be demonstrated through product testing as per the specified standards.
- 3. Raw Materials:** The Certification demands for efforts to bring down the use of virgin materials through the use of re-cycled material and elimination of toxic and hazardous content in the input materials for product manufacturing.
- 4. Manufacturing Process:** The green product Certification recognizes the efforts taken by the product manufacturer to reduce the resource consumption during the manufacturing process
- 5. Waste Management:** The Certification calls for efforts to reduce the generation of wastes or safer disposal of the wastes generated during manufacturing process
- 6. Life Cycle Approach:** The Certification encourages the product manufacturer to carry out Life cycle analysis for the products and implement measures to reduce the overall life-cycle environmental impacts based on such an analysis.
- 7. Product Stewardship:** The Certification recognizes the measures implemented by the product manufacturers to reduce environmental and health impacts in product transportation, use and recycling / disposal
- 8. Innovation:** The Certification recognizes the innovative measures implemented by the product manufacturer which had resulted in substantial reduction in environment impact exceeding the threshold level specified in the Certification standard.

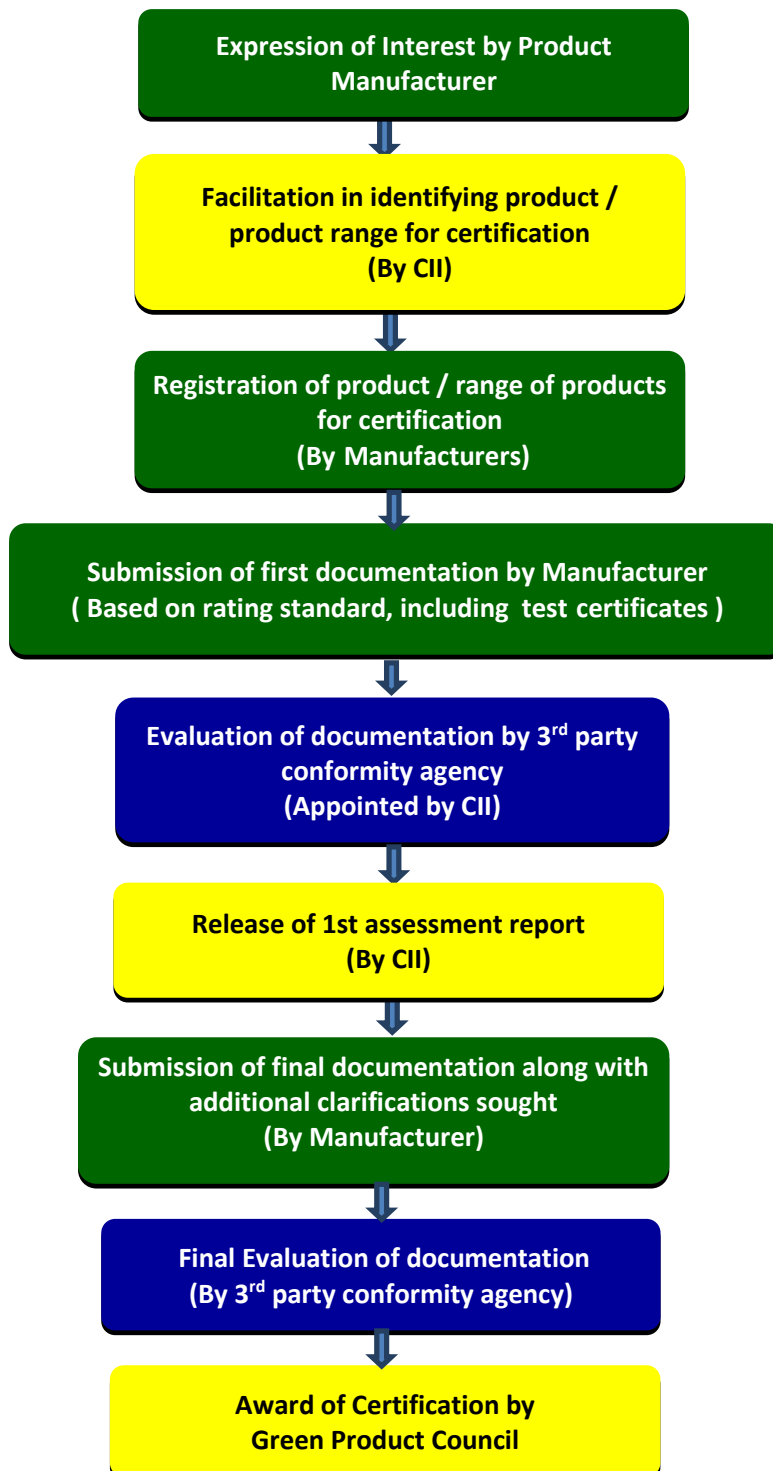
The approach and the Credit Modules for evaluation of products remain by and large the same for all the product categories. However, the credits as part of the individual Credit Modules and the weightage will vary depending upon the product categories and their significance.

A Product needs to comply with certain specified mandatory requirements. The mandatory requirements will vary depending upon the product category.

The threshold limit of all the credits is 100. The product manufacturers can apply for the Credits depending upon the applicability and gain credit points for the Certification.

7.Methodology of Certification

The step by step methodology for the Certification is mentioned below.



7.1 Product testing

The Green Product Certification calls for testing of select product parameters for the award of Certification. The product parameters will vary depending upon product categories. Wherever testing of the products is specified, the Certification system also specifies the testing standards and the requirements.

The product manufacturers can carry out the product testing as per the guidelines of **Water Efficient products – India™ WEP-I 2017** in any of the Laboratories accredited by the **National Accreditation Board for Testing and Calibration Laboratories (NABL)** according to the specified standards and produce the test certificates with the test results for further evaluation.

If the product testing has been already carried out in an NABL accredited laboratory owned by the product manufacturer, the product manufacturer has to submit the details of the test procedures & methodology for verification.

If the product testing needs to be carried out outside the country, the laboratory should have been accredited by the accrediting agency recognized by the Government of the respective country or an accrediting agency which is a member of international bodies such as International Laboratory Accreditation Co-operation (ILAC), Asia Pacific Laboratory Accreditation Co-operation (APLAC) etc.

7.2 Evaluation by 3rd party Conformity Agency

The document submitted by the product manufacturer will be evaluated by a 3rd party conformity agency appointed by CII-Godrej GBC.

Conformity agency is a competent 3rd party agency for carrying out product conformity assessment for various products which would involve Product testing, inspection, factory audits and documentary review.

8. Green product Certification

A product will be certified depending upon the number of credit points achieved based on the evaluation of 3rd party conformity agency.

The maximum achievable credit points are 100. A product will be certified as 'Green Product' if it achieves 50 or more credit points in the evaluation.

9. Validity of the Certification

GreenPro Certification is valid for 2 years from the date of award of the Certification for the product / product range.

At the end of the validity period, the product manufacturer needs to apply for the renewal of the Green product Certification.

10. Updating the Standard

GreenPro Certification Standard for Plumbing Fixtures, Sanitaryware, Clothes Washer and Dishwasher is the result of Green Products and Services Council's efforts towards facilitating market transformation in Green Building Products. The Council's endeavor is to periodically update the standard and raise the bar.

The updating of the standard will be taken up with the support of the product committee on consensus basis. Updates or addenda will be incorporated and formally communicated to the applicants.

GreenPro Certification		
Scope: Water Closets, Urinals, Shower Heads, Hand Held Showers, Lavatory Faucets, Sink Faucets, Handheld Ablution Spray, Dish Washer & Clothes Washer etc.		
Credits	Criteria	Proposed Credit Points
1 Product Design		
Credit 1.0	<i>Eco - Vision</i>	1
	<i>Strategies adopted, resource allocation, stake holder engagement, Implemented measures & Impacts</i>	
	<i>- At design stage of the product</i>	2
	<i>- At manufacturing stage of the product</i>	2
<i>Sub Total</i>		5
2 Product Performance		
Sanitaryware		
Credit 2.1	Water Closets	
	European Water Closet with dual flush cistern or flushometer valve rated at not more than 6 liters for full flush and 3 liters for half flush.	10
	High-efficiency European Water Closet rated at not more than 4.8 liters per full flush.	20
	High-efficiency European Water Closet rated at less than 4.8 liters per full flush.	30
	High-efficiency European Water Closet rated at less than 4.0 liters per full flush.	45
	*Only dual flush water closets shall be considered for GreenPro certification.	
	Combination water closet or Asian/Indian Water Closet (Squatting Pan) with a dual flush cistern or flushometer valve rated at not more than 6 liters per flush and 3 liters per half flush	15
	Combination water closet or Asian/Indian Water Closet (Squatting Pan) with a cistern or flushometer valve rated at not more than 4.8 liters per full flush	15
	Combination water closet or Asian/Indian Water Closet (Squatting Pan) with a cistern or flushometer valve rated at less than 4.8 liters per flush	30
*Only dual flush water closets shall be considered for GreenPro certification.		

Credit 2.2	<i>Urinals</i>	
	Urinals with flushing device rated at less than 3.8 liters per flush.	15
	Urinals with flushing device rated at less than 2 liters per flush.	25
	Urinals with flushing device rated at less than 1 liter per flush.	35
	Waterless Urinals	45
	<i>Plumbing Fixtures</i>	
Credit 2.3	<i>Shower Heads / Hand-Held Showers</i>	
	Shower head with flow-rates not more than 9.5 lpm.	15
	Shower head with flow-rates not more than 7.5 lpm.	30
	Shower head with flow-rates not more than 5.7 lpm	45
Credit 2.4	<i>Lavatory Faucets</i>	
	<i>Private Use</i>	
	Non-metered faucets with flow-rates of not more than 8 lpm.	15
	Non-metered faucets with flow-rates of not more than 5.7 lpm.	30
	Non-metered faucets with flow-rates not more than 4.5 lpm.	45
	<i>Public Use (Metered Faucets)</i>	
	Metered Faucets, with mechanical control, delivering not more than 1 liter per cycle	15
	Metered Faucets, with electronic control, delivering not more than 1 liter per cycle	30
	Metered Faucets, with electronic or mechanical control, delivering not more than 0.5 liter per cycle	45
Credit 2.5	<i>Handheld Ablution Spray (Ablution Faucet with hose and trigger)</i>	
	Handheld ablution spray with flow rates of not more than 5.7 lpm	15
	Handheld ablution spray with flow rates of not more than 5.0 lpm	30
	Handheld ablution spray with flow rates of not more than 4.0 lpm	45
	<i>Sink Faucets</i>	
	Sink faucets and hand held sprays with flow-rates of not more than 8 lpm.	15
	Sink faucets and hand held sprays with flow-rates of not more than 5.7 lpm.	30
	Sink faucets and hand held sprays with flow-rates of not more than 4.5 lpm	45

Credit 2.6	<i>Dishwashers</i>	
	Dish washer using not more than 36 liters of water per full load of wash and rinse cycle.	15
	Dish washer using less than 30 liters of water per full load of wash and rinse cycle.	30
	Dish washer using less than 24 liters of water per full load of wash and rinse cycle.	45
Credit 2.7	<i>Clothes Washer</i>	
	Clothes washers with water consumption of less than 1000 liters per cubic meter of drum volume with water factor* 7.5	15
	Clothes washers with water consumption of less than 800 liters per cubic meter of drum volume with water factor 6.0	30
	Clothes washers with water consumption of less than 600 liters per cubic meter of drum volume with water factor 4.5	45
	Sub Total	45
3 Raw Material		
Credit 3.1	<i>Recycled content</i>	5
Credit 3.2	<i>Regional material</i>	5
<i>Sub Total</i>		10
4 Manufacturing Process		
Credit 4.1	<i>Energy Efficiency</i>	3
	<i>Reduction in specific energy consumption ≥ 5%</i>	1
	<i>Reduction in specific energy consumption ≥ 10%</i>	2
	<i>Reduction in specific energy consumption ≥ 15%</i>	3
Credit 4.2	<i>Water Efficiency</i>	3
	<i>Reduction in specific water consumption</i>	1
	<i>Implementation of rain water harvesting</i>	1
	<i>Beyond the fence initiatives</i>	1
Credit 4.3	<i>Renewable Energy</i>	4
	<i>On-site renewable energy generation (Both electrical & thermal)</i>	
	<i>≥2.5% ≤ 5% substitution</i>	2
	<i>> 5% substitution</i>	4
	<i>Sub Total</i>	10

5 Waste Management		
Mandatory Requirement	<i>Solid, Liquid and Gaseous Waste: Compliance to local regulations</i>	
Credit 5.1	Waste Utilization & Disposal	
	Non Hazardous waste	
	<i>10% reduction in disposal of waste per unit of production</i>	1
	<i>15% reduction in disposal of waste per unit of production</i>	2
Credit 5.2	Hazardous Waste	
	<i>> 5%reduction in waste going to landfill</i>	1
	<i>> 10%reduction in waste going to landfill</i>	2
	<i>> 15%reduction in waste going to landfill</i>	3
<i>Sub Total</i>		5
6 Life Cycle Approach		
Credit 6	<i>Life Cycle Analysis</i>	4
	<i>Measures taken & Quantification of benefits achieved</i>	
	<i>- Implementation of at least one initiative</i>	1
	<i>- 2% impact reduction</i>	2
	<i>- 4% impact reduction</i>	3
	<i>- 6% impact reduction</i>	4
	<i>- 8% impact reduction</i>	5
	<i>- 10% impact reduction</i>	6
<i>Sub Total</i>		10
7 Product Stewardship		
Credit 7.1	Education	2
Credit 7.2	Quality Management System	3
Credit 7.3	Extended Producer Responsibility	5
<i>Sub Total</i>		10
8 Innovation		
Credit 8.1	Innovations	4
Credit 8.2	Other Credentials, Awards and Accolades	1
<i>Sub Total</i>		5
Total Points		100

Mandatory Requirement

For a product to be taken up for GreenPro Certification, the manufacturer shall comply with the applicable Acts & Rules related to Environment and Health & Safety. This may be demonstrated, for example, by providing copies of:

(a) Valid Consent to Operate under the Water (Prevention & Control of Pollution) Act & Air (Prevention & Control of Pollution) Act

(b) Valid Authorization under the Hazardous Waste (Management, Handling & Trans -boundary Movement) Rules

(c) Factory license under the Factories Act

(d) Valid licenses under the Petroleum Act, Gas Cylinder Rules, Static & Mobile Pressure Vessels Rules, Explosives Act , Boilers Act and Providing data to demonstrate continued compliance with the requirements of (a) to (d)

1.0 Product Design

Eco-Vision

Points: 5

Intent:

To design the product holistically considering all the environmental attributes, so as to minimize associated impacts

Award of points:

Provide the details of the Eco Vision to action as per the following for achieving excellence in design of the products that would result in environmental, health & wellbeing benefits.

- Eco-Vision statement
- Strategies adopted, resource allocation, stake holder engagement, Implemented measures & Impacts
 - ❖ At the design stage
 - ❖ At the manufacturing stage

Credits	Criteria	Credit Points
	Product Design	
Credit 1.1	Eco - Vision statement	1
	Strategies adopted, resource allocation, stake holder engagement, Implemented measures & Impacts	
	- At the design stage of the product	2
	- At the manufacturing stage of the product	2

Exemplary Performance:

This credit is not eligible for exemplary performance under Innovation Credit.

Documentation Required:

- Eco Vision statement
- Strategies adopted at the design & the manufacturing stage to achieve eco vision
 - ❖ For Eg:
 - ❖ Resource allocation for improving the design of the product & manufacturing of the product
 - ❖ Employees and stakeholders engaged
- Details of measures implemented at the design stage and the manufacturing stage of the product with quantification of benefits

2.0 Product Performance

Credit 2.1: Use of water efficient low flow fixtures

Points: 45

Intent:

Use of water efficient low flow fixtures to reduce the usage of water during the entire product lifecycle.

Mandatory requirement

The products shall comply with Water Efficient Products – India™ : WEP-I 2017 standard requirements.

Award of points:

2	Product Performance	
	Sanitaryware	
Credit 2.1	Water Closets	
	European Water Closet with dual flush cistern or flushometer valve rated at not more than 6 liters for full flush and 3 liters for half flush.	10
	High-efficiency European Water Closet rated at not more than 4.8 liters per full flush.	20
	High-efficiency European Water Closet rated at less than 4.8 liters per full flush.	30
	High-efficiency European Water Closet rated at less than 4.0 liters per full flush.	45
	*Only dual flush water closets shall be considered for GreenPro certification.	
	Combination water closet or Asian/Indian Water Closet (Squatting Pan) with a dual flush cistern or flushometer valve rated at not more than 6 liters per flush and 3 liters per half flush	15
	Combination water closet or Asian/Indian Water Closet (Squatting Pan) with a cistern or flushometer valve rated at not more than 4.8 liters per full flush	15
	Combination water closet or Asian/Indian Water Closet (Squatting Pan) with a cistern or flushometer valve rated at less than 4.8 liters per flush	30
	*Only dual flush water closets shall be considered for GreenPro certification.	

Credit 2.2	<i>Urinals</i>	
	Urinals with flushing device rated at less than 3.8 liters per flush.	15
	Urinals with flushing device rated at less than 2 liters per flush.	25
	Urinals with flushing device rated at less than 1 liter per flush.	35
	Waterless Urinals	45
	<i>Plumbing Fixtures</i>	
Credit 2.3	<i>Shower Heads / Hand-Held Showers</i>	
	Shower head with flow-rates not more than 9.5 lpm.	15
	Shower head with flow-rates not more than 7.5 lpm.	30
	Shower head with flow-rates not more than 5.7 lpm	45
Credit 2.4	<i>Lavatory Faucets</i>	
	<i>Private Use</i>	
	Non-metered faucets with flow-rates of not more than 8 lpm.	15
	Non-metered faucets with flow-rates of not more than 5.7 lpm.	30
	Non-metered faucets with flow-rates not more than 4.5 lpm.	45
	<i>Public Use (Metered Faucets)</i>	
	Metered Faucets, with mechanical control, delivering not more than 1 liter per cycle	15
	Metered Faucets, with electronic control, delivering not more than 1 liter per cycle	30
	Metered Faucets, with electronic or mechanical control, delivering not more than 0.5 liter per cycle	45
	<i>Note: Non-metered faucets for public use are not considered for GreenPro certification.</i>	
Credit 2.5	<i>Handheld Ablution Spray (Ablution Faucet with hose and trigger)</i>	
	Handheld ablution spray with flow rates of not more than 5.7 lpm	15
	Handheld ablution spray with flow rates of not more than 5.0 lpm	30
	Handheld ablution spray with flow rates of not more than 4.0 lpm	45
	<i>Sink Faucets</i>	
	Sink faucets and hand held sprays with flow-rates of not more than 8 lpm.	15
	Sink faucets and hand held sprays with flow-rates of not more than 5.7 lpm.	30
	Sink faucets and hand held sprays with flow-rates of not more than 4.5 lpm	45

Credit 2.6	<i>Dishwashers</i>	
	Dish washer using not more than 36 liters of water per full load of wash and rinse cycle.	15
	Dish washer using less than 30 liters of water per full load of wash and rinse cycle.	30
	Dish washer using less than 24 liters of water per full load of wash and rinse cycle.	45
Credit 2.7		
	<i>Clothe Washers</i>	
	Clothes washers with water consumption of less than 1000 liters per cubic meter of drum volume with water factor* 7.5	15
	Clothes washers with water consumption of less than 800 liters per cubic meter of drum volume with water factor 6.0	30
	Clothes washers with water consumption of less than 600 liters per cubic meter of drum volume with water factor 4.5	45
	<i>*Water Factor: The quantity of water in liters used to wash each cubic meter volume of machine drum capacity.</i>	
	Sub Total	45

Documentation Required:

The product manufacturers can carry out the product testing as per the guidelines of Water Efficient products – India™ WEP-I 2017 in any of the Laboratories accredited by the National Accreditation Board for Testing and Calibration Laboratories (NABL) according to the specified standards and produce the test certificates with the test results for further evaluation.

Credit 3: Recycled content and Regional Procurement

Points: 10

Intent:

Utilize recycled and local materials for manufacturing the products to minimize the environmental impacts associated with use of virgin materials and their transportation.

Award of points:

Demonstrate utilization of recycled content in manufacturing and procure local raw materials.

Credits	Criteria	Credit Points
	Raw Material	
Credit 3.1	Encourage use of recycled content in raw materials	5
Credit 3.2	Encourage regional procurement	5
	Sub Total	10

Recycled Content

Credit points will be awarded if the manufacturer demonstrates use of recycled content in the products manufactured.

Documentation Required:

- Declaration by the manufacturer highlighting the % of recycled content by weight in the product / product range applied for Certification
- Details of Annual production, quantity of purchased materials for recycling and raw materials purchased.

Regional Procurement

Award of points:

Source the raw materials regionally within 250 kms from the place of manufacturing. Credit points will be awarded for any additional sourcing of raw materials over and above 40% by weight which is a mandatory requirement.

Documentation Required:

- Declaration by the manufacturer, highlighting the % of raw materials by weight sourced regionally.
- Details of the sources of the raw materials and the distance from the manufacturing facility.

4.0 Manufacturing Process

Credit 4.1: Energy Efficiency

Points: 3

Intent:

Enhance energy efficiency in the manufacturing process of the product, to reduce environmental impacts.

Award of points:

Establish specific consumption of the plant and monitor on a continuous basis

Implement energy efficiency improvement projects or technologies for reducing the energy consumption.

Credits	Criteria	Credit Points
4	Manufacturing Process	
Credit 4.1	Energy Efficiency (improvement in the last 3 years)	3
	Reduction in specific energy consumption \geq 5%	1
	Reduction in specific energy consumption \geq 10%	2
	Reduction in specific energy consumption \geq 15%	3

Exemplary Performance:

This credit is eligible for exemplary performance under Innovation Credit, provided, the measures implemented for reducing the energy consumption are innovative and resulted in significant reduction in energy consumption

Documentation Required:

- Details of annual production, energy consumption & specific energy consumption for the preceding 3 years
- Details of National Benchmark & International Benchmark data with comparisons
- Details of implementation of energy efficiency improvement measures with actual benefits achieved

Note:

Manufacturing units which are in operation for less than 2 years need to demonstrate a system in place for specific energy consumption monitoring.

Credit 4.2: Water Efficiency

Points: 3

Intent:

Incorporate water efficiency measures in the manufacturing process to reduce potable water consumption and implement measures to benefit the society at large.

Award of points:

Implement water efficient measures & technologies and recycle* waste water generated from the plant to reduce the fresh water consumption.

Harvest or Capture minimum of 95% of rain water runoff from roof & non roof areas of the manufacturing facility

Implement measures for improving the availability of portable water beyond the fence for the benefit of the local community

Credits	Criteria	Credit Points
	Manufacturing Process	
Credit 4.2	Water Efficiency	
	Reduction in specific water consumption (improvement in the last 3 years)	
	Reduction in specific water consumption \geq 5%	1
	Reduction in specific water consumption \geq 10%	2
	Rain water Harvesting - Harvest 95% rainwater run-off from Roof & Non Roof areas	1

*- Recycling of water can be factored into the reduction in specific water consumption

Exemplary Performance:

This credit is eligible for exemplary performance under Innovation, if the facility achieves the status of "Zero effluent Discharge"

(OR)

The measures taken exceed the threshold mentioned in the compliance options.

Documentation Required:

- Details of annual water consumption & Specific water consumption for 3 years
- Details of National Benchmark & International Benchmark data with comparisons
- Rain water harvesting system installed and quantity of water harvested annually
- Details of the beyond the fence initiatives and the benefits

Credit 4.3: Renewable Energy

Points: 4

Intent:

Encourage the use of on-site & off site renewable energy sources to reduce the dependence on fossil fuels and their associated environmental impacts.

Award of points:

Install on-site & off-site renewable energy system to reduce dependence on fossil fuels.

Credits	Criteria	Credit Points
	Manufacturing Process	
Credit 4.3	Renewable Energy	
	<i>On-site renewable energy generation (Both electrical & thermal)</i>	
	$\geq 2.5\% \leq 5\%$ substitution	2
	$> 5\%$ substitution	4

A company is eligible for claiming the allotted points to the threshold level of 4 Credits if they have done exceedingly in either on-site or Off site renewable energy generation.

Exemplary Performance:

This credit is eligible for exemplary performance under Innovation Credit, if the contribution from the renewable energy sources is more than 40% of the annual energy requirement of the manufacturing facility

Documentation Required:

- Details of installation of onsite and offsite renewable power generation. Certification sources including the technology, installed capacity and location with photographs of installations.
- Details of total power consumption in the manufacturing facility and renewable power produced in kWh

5.Waste Management

Points: 5

Mandatory requirements

Compliance to local regulations on solid, liquid and gaseous wastes discharged from the manufacturing location.

Intent

To ensure that the solid, liquid & gaseous wastes discharged from the plant complies with all local regulations.

Compliance options

A copy of the Environmental Statement submitted to the State Pollution Control Board for the previous financial year (with the seal of receipt by the Board)

Intent:

Encourage appropriate handling and disposal of waste during manufacturing, thereby reducing environmental impacts and enhance health & wellbeing of the society.

Award of points:

Minimize wastes through 'reduce, reuse and recycle' techniques. Reduce waste disposal to landfill / incineration.

Credits	Criteria	Credit Points
	Waste Management	
Credit 5	Waste Utilization & Disposal (in the last 3 years)	
	Non Hazardous waste	
	10% reduction in disposal of waste per unit of production	1
	15% reduction in disposal of waste per unit of production	2
	Hazardous Waste	
	> 5%reduction in waste going to landfill/incineration	1
	> 10%reduction in waste going to landfill/ incineration	2
	> 15%reduction in waste going to landfill/ incineration	3

Exemplary Performance:

This credit is eligible for exemplary performance under Innovation Credit, if 100% of the waste generated is utilized through innovative ways and means with higher value addition.

Documentation Required:

Details of the following for the preceding 3 years:

- Details of waste Generated and their quantity by weight or volume
- Details of Utilization of the wastes and the process of utilization
- Details of the wastes handed over to Approved Common Hazardous Wastes Treatment Storage and Disposal Facility (TSDF) for past 3 years

6.0 Life Cycle Approach

Credit 6 : Life Cycle Analysis

Points: 10

Intent:

Identify environmental impact at every stage of the life cycle of the product and initiate measures to reduce such impacts

Award of points:

Carry out Life cycle analysis of the product for the boundary conditions of Cradle to Grave/Cradle. i.e. from design to end-of-life of the product, through procurement, manufacturing, use and disposal of the manufactured products.

The product manufacturer can carry out the life cycle analysis with the support of external service provider or with internal expertise using a LCA software tool.

Based on the Life Cycle impact analysis, implement measures for reducing the environmental impacts.

Credits	Criteria	Credit Points
	Life Cycle Approach	
Credit 6	Life Cycle Analysis	4
	Measures taken & Quantification of benefits achieved	
	- Implementation of at least one initiative	1
	- 2% impact reduction	2
	- 4% impact reduction	3
	- 6% impact reduction	4
	- 8% impact reduction	5
	- 10% impact reduction	6

Exemplary Performance:

This credit is eligible for exemplary performance if the implemented measure is innovative and addresses any of the measure that has not been covered as part of the Certification system

Documentation Required:

- LCA study report with the details of the study conducted and impact analysis
- Details of the measures implemented based on the impact analysis of LCA study and the benefits achieved

7. Product Stewardship

Points : 10

Product stewardship advocates that all those involved in the Life Cycle of product share responsibility for reducing its health and environmental impacts with producers bearing the primary responsibility.

In the Green Product Rating, Product Stewardship credit focuses on the following:

- Education for the Stake holders on Green Products for reaping the intended benefits fully
- Quality management system for minimizing the rejection rate after product dispatch
- Extended producer responsibility increasing the recycling or safer disposal

The credit points are allotted for the focus areas as applicable for the individual product categories.

In case of Plumbing Fixtures only education and Quality management system for minimizing the rejection rate are considered.

Credit 7.1: Education**Points: 2****Intent:**

Educate those involved in handling the product at every stage post-dispatch, so as to reap the intended environmental benefits.

Compliance options:

Companies to develop and implement stake holder specific awareness and information sharing programmes for reaping the benefits of Green products at every stage of its life cycle.

Credits	Criteria	Credit Points
7	Product Stewardship	
Credit 7.1	Education	
	> 10% of people involved in handling the product after dispatch and users	1
	> 20% of people involved in handling the product after dispatch and users	2

Exemplary Performance:

This credit is not eligible for exemplary performance under innovation criteria.

Documentation Required:

- Details of the stake holder's specific awareness or information dissemination programmes about the Green Products, its features and their roles to reap the intended benefits
- Estimation of % of stake holders covered

Credit 7.2: Ensure Quality & Minimize Rejection Rate**Points: 3****Intent:**

Minimize rejection rate during dispatch & storage and ensure that the quality of product is maintained till delivery to the end user.

Compliance options:

Companies to have a Quality management system to ensure that the quality of the products is maintained as per the requirements during dispatch and storage, until the final delivery.

Quantify, record and Monitor the rejection of the products after the dispatch.

Credits	Criteria	Credit Points
7	Product Stewardship	
Credit 7.2	Quality maintenance & Minimization of rejection rate	
	4% reduction in rejection rate during dispatch & storage	1
	6% reduction in rejection rate during dispatch & storage	2
	8% reduction in rejection rate during dispatch & storage	3

Exemplary Performance:

This credit is not eligible for exemplary performance under innovation criteria

Documentation Required:

- Details of the quality management system to bring down the rejection rate after the dispatch of the products
- Details of the quantify of product dispatched and the rejection rate

7.3 Extended Producer Responsibility

Points: 5

Intent

To encourage manufacturers to institute a mechanism for product take-back for recycling or safe disposal at the end of useful life.

Compliance options:

The company is encouraged to have a mechanism for product take back which would involve:

- Collection
- Environmentally sound treatment of collected product
- Use of product & materials in the form of reuse or recycling

The company has to employ an environmentally friendly procedure or method to disposed off products that cannot be reused or recycled. The disposal method to comply with the Law of the country.

Credits	Criteria	Credit Points
	Product Stewardship	
Credit 7.3	Extended Producer Responsibility : Institute a system for product take-back for recycling or safe disposal	5

Exemplary Performance:

This credit is not eligible for exemplary performance under innovation criteria.

Documentation Required:

- Details of the mechanism in place for product take back

8.0 Innovation

Credit 8.1 Product Innovation

Points: 5

Intent:

Recognize initiatives that are not addressed in this rating system but have a profound impact in protecting the environment.

Compliance options:

As part of the credit, the product manufacturer can apply for four innovative measures. If the implemented measures meet any one of the following criteria mentioned below can be considered as an innovative measure.

- Any environmental measure not covered in the rating but addressed by the manufacturer
- Any measure surpassing the credit threshold of any of the credits included as part of this rating
- Receipt of Eco labels, Awards & accolades

The points for innovative measures are as follows:

Credits	Criteria	Credit Points
8	Innovation	
Credit 8.1	Innovation: Each innovative measure implemented at any stage of Life cycle will gain 1 Credit Point	4
	Other Credentials, Awards and Accolades	1

Documentation Required:

- Details of the innovative measures highlighting the Intent and the measured Impacts
- Copy of the certificates for the details of Eco-labels, Awards & accolades obtained

About CII

The Confederation of Indian Industry (CII) works to create and sustain an environment conducive to the development of India, partnering industry, Government, and civil society, through advisory and consultative processes.

CII is a non-government, not-for-profit, industry-led and industry-managed organization, playing a proactive role in India's development process. Founded in 1895, India's premier business association has over 8000 members, from the private as well as public sectors, including SMEs and MNCs, and an indirect membership of over 200,000 enterprises from around 240 national and regional sectoral industry bodies.

CII charts change by working closely with Government on policy issues, interfacing with thought leaders, and enhancing efficiency, competitiveness and business opportunities for industry through a range of specialized services and strategic global linkages. It also provides a platform for consensus-building and networking on key issues.

About GPSC

The Green Products and Services Council was formed by CII-Sohrabji Godrej Green Business Centre, CII's Developmental Institute on Green Practices & Businesses. The objective of the Council is to facilitate Green Product Market Transformation in India. The Council is committee-based, member-driven and consensus-focused. The Council involves all major stakeholders including Government, Product Manufacturers, Standard Developers, Conformity Agencies, Product Testing Laboratories and Academia.

The Green Products and Services Council presently offers GreenPro Certification which is a Type-1 Eco-label for Green building Materials, Products and Technologies. The Standards are developed based on consensus by Technical Committees involving all major stakeholders. The GreenPro certification has been accredited by Global Ecolabelling Network (GEN) based on international standard ISO 14024.

Knowledge Partners

About IPA

The Indian Plumbing Association (IPA), established in 1993, is the apex body of plumbing professionals in the country. Set up with an objective to promote advancements in plumbing and the building service industry, IPA has successfully created a forum for exchange of ideas and dissemination of information amongst its members. As a member of the World Plumbing Council, it encourages its members to achieve and maintain high standards of workmanship.

IPA's membership includes architects, builders, plumbing consultants, plumbing contractors, plumbing product manufacturers, traders and planners. IPA also conducts conferences and exhibitions throughout India and publishes the monthly magazine Indian Plumbing Today. The idea is to make local plumbing professionals aware of issues, problems and prospects in the industry. IPA along with IAPMO India has succeeded in creating awareness about the need for safe plumbing and is now ready to assist the Indian professionals with improving their skills and expertise.

About IAPMO

IAPMO Plumbing Codes and Standards India Private Limited (known as IAPMO India) was founded in 2007 with registered office at Bengaluru. IAPMO India and the Indian Plumbing Association (IPA) began, and continue to foster, a strong and essential partnership to provide better services for the industry. The latest and most comprehensive plumbing codes and training and education programs for code-based plumbing installations and maintenance for all of India developed from this partnership.

The Uniform Plumbing Code - India (UPC-I), based on IAPMO's globally recognized flagship document, was released in 2008, and a subsequent version released in 2011 and 2017. In addition, the team of IAPMO India and IPA has also developed and released the Uniform Solar Energy Code - India (USEC-I), the Green Plumbing Code Supplement - India (GPCS-I), and the Uniform Swimming Pool Code - India (USPC-I). This team of experts expanded its portfolio in 2011 by responding to the needs of the market and developing a water efficient ratings scheme, titled Water Efficient Products - India (WEP-I) and a subsequent version released in 2017 titled "2017 Water Efficient Products - India" (2017 WEP-I) and has since published and implemented this scheme pan India to assist efforts in reducing water usage through efficient fixtures.

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