



Confederation of Indian Industry



GreenPro Ecolabelling Standard for

# Copper Tubes

Pilot Version

---

## Supporting Councils, Programmes & Organisations

---



International Copper Association India  
Copper Alliance



Confederation of Indian Industry



**GreenPro Ecolabelling Standard for**  
**“Copper Tubes”**  
**Pilot Version**

## Copyright

All Rights Reserved

CII-Sohrabji Godrej Green Business Centre authorizes you to view the standard for GreenPro Ecolabelling for individual use. You agree not to sell or modify the GreenPro Ecolabelling standard in any way for any public or commercial purpose, including display in a website or in a networked environment.

Unauthorized use of the GreenPro Ecolabelling standard violates copyright, trademark and other laws, and is prohibited. All the contents in the GreenPro Ecolabelling standard are owned by the CII Sohrabji Godrej Green Business Centre and are protected by copyright.

## Disclaimer

None of the parties involved in the creation of the GreenPro Ecolabelling, including Green Products & Services Council, its members, or the Indian government make any warranty (express or implied) or assume any liability or responsibility, to you or any third parties for the accuracy, completeness or use of, or reliance on, any information contained in the GreenPro Certification Standard, or for any injuries, losses or damages (including, without limitation, equitable relief) arising out of such use or reliance.

As a condition of use, you covenant not to sue and agree to waive and release the Green Products & Services Council, its members and the Indian government from any and all claims, demands and causes of action for any injuries, losses or damages (including, without limitation, equitable relief) that you may now or hereafter have a right to assert against such parties as a result of your use of, or reliance on, the GreenPro Ecolabelling.

The GreenPro Ecolabelling standard is applicable only for Copper Tubes and not for any other equipment of solar photovoltaic system.

## Published by:

Confederation of Indian Industry  
CII- Sohrabji Godrej Green Business Centre  
Survey No 64, Kothaguda Post  
Near HITEC City, Hyderabad - 500 084  
Tel: +91 40 44185111  
Fax: +91 40 44185189  
[www.greenbusinesscentre.com](http://www.greenbusinesscentre.com)

## Acknowledgement

The GreenPro Ecolabelling for Copper Tubes has been made possible through the efforts of Green products & Services Council and the members of technical committee on Copper Tubes

We express our gratitude to all the members who had contributed for the development of the certification. Our special thanks to **Dr D De Sarkar, Head – Technical Committee for Copper Tubes and & CEO, Indian Copper Development Centre, and the following technical committee members:**

- ❖ Mr Mayur Karmakar, Managing Director, International Copper Association India
- ❖ Mr Debdas Goswami, Senior Advisor, International Copper Association India
- ❖ Mr Hitesh Vaghela, Managing Director, Global Copper Pvt Ltd
- ❖ Mr Sandeep Papriwal, Managing Director, Vaishali Metals Pvt Ltd
- ❖ Mr Gurmit Singh Arora, Managing Director, Rajco Metal Industries Private Limited
- ❖ Mr Mukesh Mehta, Director, Mehta Tubes Ltd
- ❖ Mr. Mahendra Mehta, Managing Director, Mercure Metals And Alloys Pvt. Ltd.
- ❖ Mr. Pratik Kabra, Partner, Metal Alloys Corporation
- ❖ Mr. Dhrunal C. Patel, Chief Executive, Star Copper
- ❖ Mr Prasad Pendse, General Manager, Godrej Appliances
- ❖ Mr Ganesh Newton, Product Manager, Blue Star Limited
- ❖ Mr Srinivasa Reddy Tiyyagura, Vice President - R&D, Daikin Airconditioning India Private Limited
- ❖ Mr Atul Chouthai, General Manager - R&D, Daikin Airconditioning India Private Limited
- ❖ Mr Srinivasu Moturi, Head - R&D Center, Voltas Limited
- ❖ Mr B B Kale, Country Manager, Emerson Climate Technologies Private Limited
- ❖ Mr Garish Malhotra, Head – Hardline, Intertek
- ❖ Mr Nilesh Kusal, Metallurgy and Corrosion Lab Incharge, SGS India Pvt Ltd

## 1. GreenPro Ecolabel – Life Cycle Approach

The GreenPro Ecolabelling scheme adopts a holistic approach based on the 'Life Cycle' of the product. The rating system 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. Raw Materials
3. Manufacturing Process
4. Product Performance during use
5. Disposal / Recycling



## 2. Benefits

GreenPro Ecolabel 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 Ecolabel 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 waste etc., during the manufacturing process and hence increase in profitability
5. Acts as a driver for achieving environment excellence
6. Increases export opportunity to ecolabelled products
7. Complements National & International Green Building and Green Company Certification systems

### For Users

Use of GreenPro Ecolabelled paper packaging product leads to significant tangible and intangible benefits for the end users (FMCG companies).

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

1. Recognition and credits for achieving national and international certification for the Green Factory and Green Companies

2. Contributes to achieving organizational commitments related to sustainability and green packaging
3. Time and effort in carrying out due diligence in selecting a green product by a Green Company or Green Corporate is saved
4. Ensures toxic and hazardous substances free products which in turn decrease “health and wellbeing” risks of the users

### **3. National Priorities addressed in GreenPro Ecolabelling Scheme**

GreenPro Ecolabel 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 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 ecolabelling scheme promotes circular economy by increasing recycling rate which would result in reduction in landfills and hence reduction in land pollution.

#### *Energy Efficiency:*

The ecolabelling 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. This provides an opportunity to users to choose more energy-efficient and sustainable products from the product basket of the producer.

#### *Renewable Energy:*

The ecolabelling scheme 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.

### **4. Development of GreenPro Ecolabelling Standards**

GreenPro Ecolabel applies product specific ‘**Ecolabelling Standards**’ for evaluating the products. The ecolabelling standards are developed with the support of respective product committees formed under the aegis of Green products and services council.

The product committee involves all major stakeholders related to the respective product category including product manufacturers, standard setters, conformity agencies, consultants, user’s *et al.* The product committee is led by an expert who is also an unbiased specifier.

Key findings of pilot projects will be incorporated in ecolabelling standard with consent from the product committee.

#### 4.1 Features of GreenPro Ecolabel

The ecolabelling scheme follows prescriptive as well as performance based approach for evaluating a product. The ecolabelling 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 environmental performance improvement 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 recycling 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 minimize the 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 based on the impact 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 / product disposal
8. **Innovation:** The certification recognizes the innovative measures implemented by the product manufacturers which had resulted in substantial reduction in environment impact exceeding the threshold level specified in the certification standard.

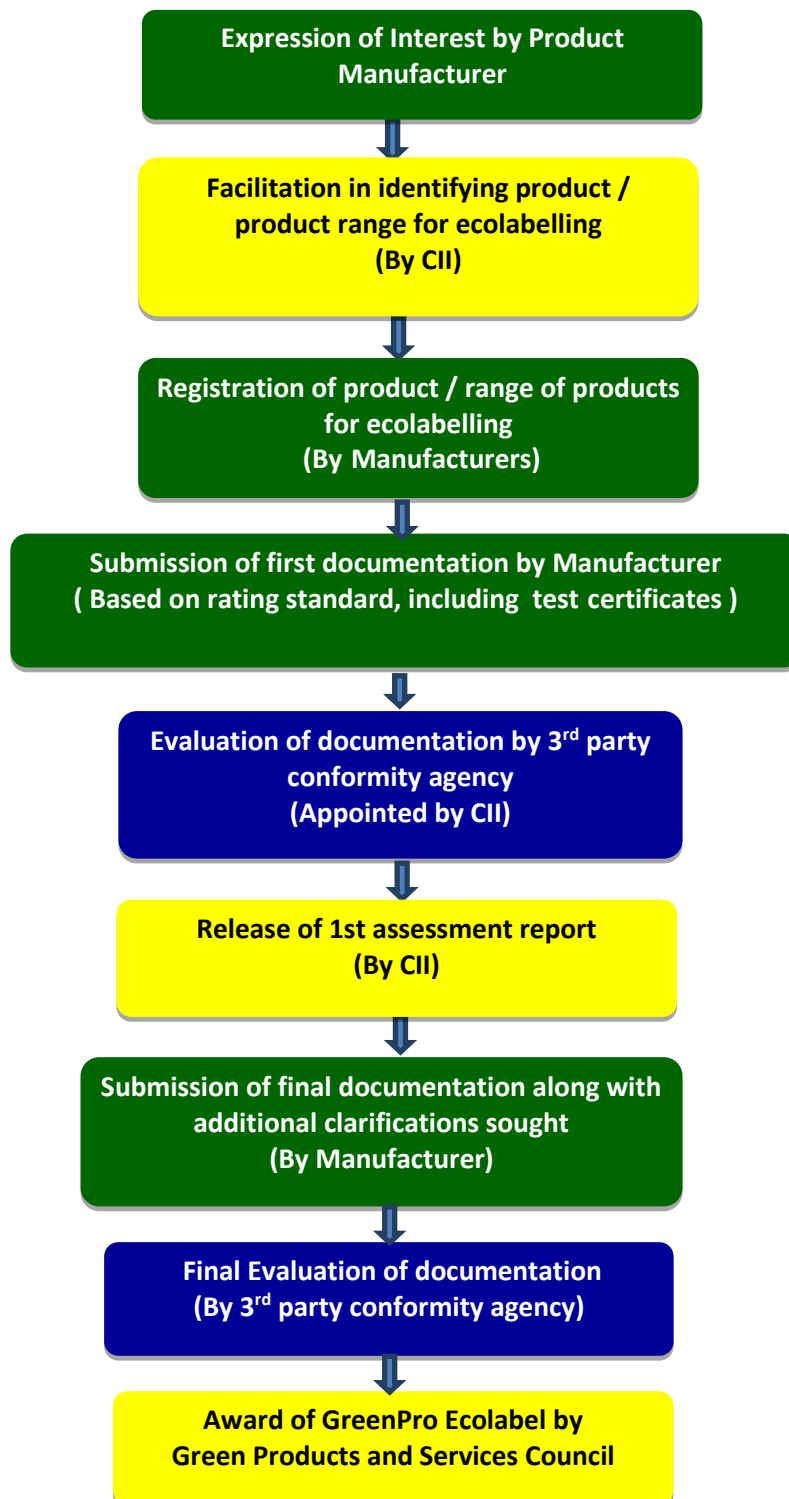
The approach and the credit modules for evaluation of products remain by and large the same for all the product categories. However, the credits as part of the individual credit modules and the weightage will vary depending upon the product categories and their significance.

**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.

## 5. Methodology of Ecolabelling

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





## 5.1 Product Testing

The GreenPro Ecolabelling scheme 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 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.

## 5.2 Evaluation by 3rd party Conformity Agency

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

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

## 6. *GreenPro Ecolabel*

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

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

## 7. *Validity of the Ecolabel*

GreenPro Ecolabel is valid for 2 years from the date of award of the ecolabel with a yearly review for the product / product range. At the end of the validity period, the product manufacturer needs to apply for the renewal of the GreenPro Ecolabel.

## **8. Fee for GreenPro Ecolabelling**

The fee details are available on GreenPro website <https://ciigreenpro.com/>. The fee details can also be obtained through the contact details mentioned in the manual.

## **9. Updation of the Standard**

GreenPro Ecolabelling Standard for Copper Tubes is the result of Green Product and Services council's efforts towards facilitating market transformation in Green 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.

## **Summary of Credits & Points Distribution**

*Scope: This standard shall cover copper tubes manufactured by both primary and secondary manufacturers. For evaluation of resource efficiency, the resource consumption during melting and rolling only would be considered.*

<b>Credits</b>	<b>Criteria</b>	<b>Proposed Credits</b>
<b>MR</b>	<b>Mandatory Requirements</b>	
	Manufacturing unit shall have <ul style="list-style-type: none"> <li>• Consent to operate the plant by the local Municipal Corporation.</li> <li>• Consent to operate under 'Air Act' and 'Water Act'</li> <li>• Authorization to operate and handle waste under the hazardous waste (management, handling &amp; trans-boundary movement) rules</li> <li>• Health &amp; Safety compliance as per the norms of National Safety Council Resource allocation</li> </ul>	
<b>1</b>	<b>Product Design</b>	<b>5</b>
<b>Credit 1.1</b>	<b>Eco-vision Statement</b>	
	Strategies adopted; environmental performance improvement measures / green measures implemented	
	➤ At design stage of the product	2
	➤ At manufacturing stage of the product	2
	➤ ISO 14001 certified manufacturing unit	1
<b>2</b>	<b>Product Performance</b>	<b>20</b>
<b>Credit 2.1</b>	<b>Durability</b>	
	<ul style="list-style-type: none"> <li>• Resistance to crack and corrosion, which will be tested through hydrogen embrittlement test</li> <li>• Demonstrate compliance towards IS 6243: 2006 – Method of Hydrogen Embrittlement Test for Copper</li> </ul>	20
<b>3</b>	<b>Raw Materials</b>	<b>30</b>
<b>Credit 3.1</b>	<b>Recycled Content</b>	
	Recycled content ≥ 5%	3
	Recycled content ≥ 10%	6
	Recycled content ≥ 15%	9
	Recycled content ≥ 20%	12
	Recycled content ≥ 25%	15

<b>Credit 3.2</b>	<b>Restriction of Hazardous Substances</b>	
	Sum of concentration of hazardous substances such as heavy metals should be within 100 PPM.	15
<b>4</b>	<b>Manufacturing Process</b>	<b>16</b>
<b>Credit 4.1</b>	<b>Energy Efficiency</b>	
	<b><i>Specific Energy Consumption (SEC)</i></b>	
	Reduction in specific energy consumption $\geq 2\%$	1
	Reduction in specific energy consumption $\geq 4\%$	2
	Reduction in specific energy consumption $\geq 6\%$	3
	Reduction in specific energy consumption $\geq 8\%$	4
	Reduction in specific energy consumption $\geq 10\%$	5
	OR	
	National benchmark	4
	International benchmark	5
<b>Credit 4.2</b>	<b>Water Efficiency</b>	
	<b><i>Specific Water Consumption (SWC)</i></b>	
	Reduction in specific water consumption $\geq 10\%$	1
	Reduction in specific water consumption $\geq 15\%$	2
	Reduction in specific water consumption $\geq 20\%$	3
	OR	
	National benchmark	2
	International benchmark	3
	<b><i>Zero effluent discharge plant</i></b>	1
	<b><i>Rainwater Harvesting System</i></b>	1
	<b><i>Beyond the fence initiatives</i></b>	1
<b>Credit 4.3</b>	<b>GHG Emission Reduction</b>	
	<ul style="list-style-type: none"> <li>Carry out GHG inventory for at least scope 01 and scope 02 emissions, scope 03. Scope 3 emission could be excluded if it is contributing to less than 40% of overall GHG emission</li> <li>Demonstrate reduction in GHG emission by improving resource efficiency and utilizing renewable energy &amp; cleaner fuel</li> </ul>	
	$\geq 5\%$ reduction in total GHG emission	1
	$\geq 10\%$ reduction in total GHG emission	2
	$\geq 15\%$ reduction in total GHG emission	3
	$\geq 20\%$ reduction in total GHG emission	4
	$\geq 25\%$ reduction in total GHG emission	5
<b>5</b>	<b>Waste Management</b>	<b>8</b>
<b>Mandatory Requirements</b>	<ul style="list-style-type: none"> <li>Solid, Liquid and Gaseous Waste: Compliance to local / regional / national regulations</li> </ul>	

<b>Credit 5.1</b>	<b>Non-Hazardous Waste</b>	
	≥ 10% reduction in disposal of waste per unit of production	1
	≥ 20% reduction in disposal of waste per unit of production	2
	≥ 30% reduction in disposal of waste per unit of production	3
	≥ 40% reduction in disposal of waste per unit of production	4
<b>Credit 5.2</b>	<b>Hazardous Waste</b>	
	≥ 5% reduction in disposal of waste per unit of production	1
	≥ 10% reduction in disposal of waste per unit of production	2
	≥ 15% reduction in disposal of waste per unit of production	3
	≥ 20% reduction in disposal of waste per unit of production	4
<b>6</b>	<b>Life Cycle Analysis</b>	<b>10</b>
<b>Credit 6.1</b>	<b>Life Cycle Analysis</b>	4
	Carry out life cycle analysis considering 'Cradle to Gate' as boundary condition and identify environmental reduction strategies.	
<b>Credit 6.2</b>	<b>Disclosure of Life Cycle Assessment results</b>	2
<b>Credit 6.3</b>	<b>Implementation of identified LCA strategies and quantification of benefits</b>	
	Strategies implemented ≥ 1	1
	Strategies implemented ≥ 2	2
	Strategies implemented ≥ 3	4
<b>7</b>	<b>Product Stewardship</b>	<b>6</b>
<b>Credit 7.1</b>	<b>Stakeholder Education and Awareness</b>	2
<b>Credit 7.2</b>	<b>Quality Management System</b>	2
	Implement effective quality management system to reduce rejection at user end	
<b>Credit 7.3</b>	<b>Extended Producer Responsibility</b>	2
	<ul style="list-style-type: none"> <li>• Institute a system for recycling of copper tubes at the end of life to promote circular economy (or)</li> <li>• Work on developing an ecosystem for recycling of copper pipes</li> </ul>	

<b>8</b>	<b>Innovation</b>	<b>5</b>
<b>Credit 8.1</b>	<b>Innovation</b>	
	<ul style="list-style-type: none"> <li>• Achieve significant and measurable environmental performance using a strategy not addressed in the GreenPro standard</li> <li>• Any measure exceeding the threshold of the credits that are applicable for exemplary performance</li> </ul>	4
<b>Credit 8.2</b>	<b>Other Credentials, Awards and Accolades</b>	
	<ul style="list-style-type: none"> <li>• Credentials, awards, and accolades related to energy and environmental performance improvement</li> </ul>	1
	<b>Total Points</b>	<b>100</b>

# **GREENPRO ECOLABELLING STANDARD FOR COPPER TUBES**

## **Mandatory Requirements**

For a product to be taken up for GreenPro Ecolabelling, the manufacturer shall comply with the applicable acts & rules related to environment and health & safety. Provide copies of:

- a) Consent to operate the plant by the local Municipal Corporation.
- b) Consent to operate under 'Air Act' and 'Water Act'.
- c) Authorization to operate and handle waste under the hazardous waste (management, handling & trans-boundary movement) rules.
- d) Health & Safety compliance as per the norms of National Safety Council Resource allocation.



## 1.0 Product Design

### Credit 1.1: Eco-Vision Statement

**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 and well-being benefits.

- ❖ Eco-vision statement
- ❖ Strategies adopted, resource allocation, stakeholder engagement, improvement measures/green measures implemented
  - At design stage
  - At manufacturing stage

Credits	Criteria	Credit Points
<b>1</b>	<b>Product Design</b>	
<b>Credit 1.1</b>	<b>Eco-vision Statement</b>	
	Strategies adopted; environmental performance improvement measures / green measures implemented	
	➤ At design stage of the product	2
	➤ At manufacturing stage of the product	2
	➤ ISO 14001 certified manufacturing unit	1
<b>Sub Total</b>		<b>5</b>

#### Exemplary Performance

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

#### Documentation Required

1. Eco-vision statement (Policy on sustainability / energy / environment).
2. Strategies adopted at design & manufacturing stage to achieve eco-vision.
  - Resource allocation for improving the design and manufacturing of the product
  - Details of employees and stakeholders engagement
3. Details of measures implemented at design stage and manufacturing stage of product with quantification of benefits.

## 2.0 Product Performance

### Credit 2.1: Durability

**Points: 20**

#### Intent

Design and manufacture Copper tubes with increased durability to ensure higher life expectancy and reduce dependence on virgin raw material.

#### Award of Points

Carry out Hydrogen Embrittlement test for copper as per IS 6234:2006 to quantify the resistance of material to crack and corrosion.

Credits	Criteria	Credit Points
<b>2</b>	<b>Product Performance</b>	
<b>Credit 2.1</b>	<b>Durability</b>	
	<ul style="list-style-type: none"> <li>• Resistance to crack and corrosion, which will be tested through hydrogen embrittlement test               <ul style="list-style-type: none"> <li>○ Demonstrate compliance towards IS 6243: 2006 – Method of Hydrogen Embrittlement Test for Copper</li> </ul> </li> </ul>	20
<b>Sub Total</b>		<b>20</b>

#### Exemplary Performance

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

#### Documentation Required

1. Test report from a NABL accredited third party laboratory for the resistance to crack and corrosion, which will be tested through hydrogen embrittlement test

### 3.0 Raw Materials

#### Credit 3.1: Recycled Content

**Points: 15**

##### Intent

Encourage the use of industrial waste in the manufacturing process to avoid dumping of waste in landfills, thereby reducing environmental impacts.

##### Award of Points

Use minimum 5% of recycled content in manufactured copper tubes, by weight on annual basis.

Credits	Criteria	Credit Points
<b>3</b>	<b>Raw Materials</b>	<b>30</b>
<b>Credit 3.1</b>	<b>Recycled Content</b>	
	Recycled content $\geq$ 5%	3
	Recycled content $\geq$ 10%	6
	Recycled content $\geq$ 15%	9
	Recycled content $\geq$ 20%	12
	Recycled content $\geq$ 25%	15
	<b>Total</b>	<b>15</b>

##### Exemplary Performance

This credit is eligible for exemplary performance under Innovation Credit, if recycled content utilization is more than 30% by weight.

##### Documentation Required

1. Annual consumption of recycled materials for last two years.
2. Supporting documents for recycled materials use such as declaration from raw material supplier highlighting % of recycled content and source of recycled content used in raw materials.

**Credit 3.2: Restriction of Hazardous Substances****Points: 15****Intent**

Eliminate / restrict use to hazardous substances that can lead to long-term health effects through either respiration / direct contact.

**Award of Points**

The concentration of hazardous substance shall be limited to the threshold specified by GreenPro.

<b>Credits</b>	<b>Criteria</b>	<b>Credit Points</b>
<b>3</b>	<b>Raw Materials</b>	
Credit 3.2	Restriction of Hazardous Substances	
	<ul style="list-style-type: none"> <li>Sum of concentration of hazardous substances such as heavy metals should be within 100 PPM.</li> </ul>	15
<b>Sub Total</b>		<b>15</b>

**Exemplary Performance**

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

**Documentation Required**

1. Test reports from material highlighting concentration of heavy metals present as per specified standard.

## 4.0 Manufacturing Process

### Credit 4.1: Energy Efficiency

**Points: 5**

#### Intent

Improve energy efficiency in the manufacturing process of Copper Tubes to reduce environmental impacts.

#### Award of Points

Conduct detailed energy audit to identify energy efficiency measures. Prior to implementation of identified energy efficiency measures, establish specific energy consumption of the plant and monitor energy consumption on a continuous basis, to evaluate energy performance improvement.

Credits	Criteria	Credit Points
<b>4</b>	<b>Manufacturing Process</b>	
<b>Credit 4.1</b>	<b>Energy Efficiency</b>	
	Conduct detailed energy audit at regular interval (once in 3 years) and implement energy conservation measures	
	<b><i>Specific Energy Consumption (SEC)</i></b>	
	Reduction in specific energy consumption $\geq$ 2%	1
	Reduction in specific energy consumption $\geq$ 4%	2
	Reduction in specific energy consumption $\geq$ 6%	3
	Reduction in specific energy consumption $\geq$ 8%	4
	Reduction in specific energy consumption $\geq$ 10%	5
	OR	
	National benchmark	4
	International benchmark	5
	<b>Sub Total</b>	<b>5</b>

#### Exemplary Performance

This credit is eligible for exemplary performance under Innovation Credit, provided, the measures implemented for reducing the energy consumption have exceeded the specified threshold limits.

#### Documentation Required

1. Details of annual production, energy consumption & specific energy consumption for the preceding 3 years
2. Details of energy efficiency improvement measures implemented with actual benefits achieved

**Credit 4.2: Water Efficiency****Points: 6****Intent**

Incorporate water conservation measures in domestic water use to reduce potable water demand at manufacturing facility.

**Award of Points**

Implement water efficiency measures such as use of low flow plumbing fixtures, reuse of treated water from onsite treatment plant and etc., to reduce specific water consumption.

Provide rainwater harvesting system to manage 95% of runoff from roof and non-roof areas of the manufacturing unit by reusing the collected rainwater runoff for gardening and flushing application or recharging ground water aquifers through percolation pits.

<b>Credits</b>	<b>Criteria</b>	<b>Credit Points</b>
<b>4</b>	<b>Manufacturing Process</b>	
<b>Credit 4.2</b>	<b>Water Efficiency</b>	
	<b><i>Specific Water Consumption (SWC)</i></b>	
	Reduction in specific water consumption $\geq$ 10%	1
	Reduction in specific water consumption $\geq$ 15%	2
	Reduction in specific water consumption $\geq$ 20%	3
	OR	
	National benchmark	2
	International benchmark	3
	<b><i>Zero effluent discharge plant</i></b>	1
	<b><i>Rainwater Harvesting System</i></b>	1
	<b><i>Beyond the fence initiatives</i></b>	1
	<b>Sub Total</b>	<b>6</b>

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

**Exemplary Performance**

The reduction in specific water consumption exceeded the threshold provided above.

**Documentation Required**

1. Details of annual production, water consumption & specific water consumption for the preceding 3 years
2. Details of rain water harvesting system capacity and quantity of water harvested annually
3. Details for Zero Effluent Discharge plant

**Credit 4.3: GHG Emission Reduction****Points: 5****Intent**

To reduce GHG emissions per tonne of copper tubes produced over the base year and thereby reduce the associated environmental impacts.

**Award of Points**

Credits	Criteria	Credit Points
<b>4</b>	<b>Manufacturing Process</b>	
<b>Credit 4.3</b>	<b>GHG Emission Reduction</b>	
	<ul style="list-style-type: none"> <li>Carry out GHG inventory for at least scope 01 and scope 02 emissions, scope 03. Scope 3 emission could be excluded if it is contributing to less than 40% of overall GHG emission</li> </ul> Demonstrate reduction in GHG emission by improving resource efficiency and utilizing renewable energy & cleaner fuel	
	≥ 5% reduction in total GHG emission	1
	≥ 10% reduction in total GHG emission	2
	≥ 15% reduction in total GHG emission	3
	≥ 20% reduction in total GHG emission	4
	≥ 25% reduction in total GHG emission	5
<b>Sub Total</b>		<b>5</b>

**Exemplary Performance**

This credit is eligible for exemplary performance under Innovation Credit if the GHG Reduction is more than 30% than the previous year GHG emissions.

**Documentation Required**

1. Details of onsite and offsite renewable energy system such as capacity, technology, location and etc.
2. Details of GHG emissions for last two or three years in the manufacturing facility.

## **5.0 Waste Management**

### **Mandatory Requirement**

#### **Intent**

Ensure the solid, liquid and gaseous waste discharged from the manufacturing unit are complying with all applicable local / regional / national regulations.

#### **Requirement**

The manufacturing unit shall have environmental clearance from state pollution control board.

#### **Documentation Required**

- Consent to operate under 'Air Act' and 'Water Act', and authorization under the hazardous waste (Management, Handling and Transboundary Movement) from state pollution control board.



**Credit 5.1: Hazardous Waste****Points: 5****Intent**

Encourage the manufacturer to implement appropriate handling and disposal of hazardous waste generated during manufacturing process, thereby reduce the environmental impacts.

**Award of Points**

Minimize hazardous waste generation and the waste sent to landfill or incineration by 3R principle (Reduce, Reuse and Recycle). Segregate hazardous waste into recyclable and non-recyclable waste.

Maximize utilization of recyclable waste at site or through external recycling agency and reduce non-recyclable waste generation.

<b>Credits</b>	<b>Criteria</b>	<b>Credit Points</b>
<b>5</b>	<b>Waste Management</b>	
<b>Credit 5.1</b>	<b>Non-Hazardous Waste</b>	
	≥ 10% reduction in disposal of waste per unit of production	1
	≥ 20% reduction in disposal of waste per unit of production	2
	≥ 30% reduction in disposal of waste per unit of production	3
	≥ 40% reduction in disposal of waste per unit of production	4
<b>Sub Total</b>		<b>4</b>

**Exemplary Performance**

This credit is eligible for exemplary performance under Innovation Credit, if 50% of hazardous waste generated is reused / recycled through innovative methods.

**Documentation Required**

1. Details of hazardous waste management process exist at manufacturing unit
2. Details of hazardous waste generated and disposed (quantity, reused, recycled, incinerated, etc.) for the preceding 3 years.
3. Details of the waste handed over to local authority approved common Hazardous Waste Treatment Storage and Disposal Facility (TSDF) for the preceding 3 years.

**Credit 5.2: Non Hazardous Waste****Points: 5****Intent**

Encourage the manufacturer to implement appropriate handling and disposal of non hazardous waste generated during manufacturing process, thereby reduce the environmental impacts.

**Award of Points**

Minimize non hazardous waste generation and the waste sent to landfill or incineration by 3R principle (Reduce, Reuse and Recycle). Segregate non hazardous waste into recyclable and non-recyclable waste.

Maximize utilization of recyclable waste at site or through external recycling agency and reduce non-recyclable waste generation.

<b>Credits</b>	<b>Criteria</b>	<b>Credit Points</b>
<b>5</b>	<b>Waste Management</b>	
<b>Credit 5.2</b>	<b>Hazardous Waste</b>	
	≥ 5% reduction in disposal of waste per unit of production	1
	≥ 10% reduction in disposal of waste per unit of production	2
	≥ 15% reduction in disposal of waste per unit of production	3
	≥ 20% reduction in disposal of waste per unit of production	4
<b>Sub Total</b>		<b>4</b>

**Exemplary Performance**

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

**Documentation Required**

1. Details of non hazardous waste management process exist at manufacturing unit
2. Details of non hazardous waste generated and disposed (quantity, reused, recycled, incinerated, etc.,) for the preceding 3 years.
3. Details of external recycler engaged for recycling non hazardous waste for the preceding 3 years.

## 6.0 Life Cycle Approach

### Credit 6.1 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
<b>5</b>	<b>Waste Management</b>	
<b>Credit 6.1</b>	<b>Life Cycle Analysis</b>	4
	Carry out life cycle analysis considering 'Cradle to Gate' as boundary condition and identify environmental reduction strategies.	
<b>Credit 6.2</b>	<b>Disclosure of Life Cycle Assessment results</b>	2
<b>Credit 6.3</b>	<b>Implementation of identified LCA strategies and quantification of benefits</b>	
	Strategies implemented $\geq 1$	1
	Strategies implemented $\geq 2$	2
	Strategies implemented $\geq 3$	4
<b>Sub Total</b>		<b>4</b>

#### 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:

1. LCA study report with the details of the study conducted and impact analysis

2. Details of Disclosed Life Cycle Assessment results
3. Details of the measures implemented based on the impact analysis of LCA study and the benefits achieved

## 7.0 Product Stewardship

Product stewardship advocates that all those involved in the life cycle of product must share responsibility for reducing its health and environmental impacts with producers bearing prime responsibility.

In the GreenPro Ecolabelling standard, Product Stewardship credit focuses on the following:

- Education and awareness program for the stakeholder on Green Products for reaping the intended benefits.
- Quality Management System (QMS) for minimizing the rejection rate after product dispatch.
- Extended producer responsibility to increase recycling rate and safer disposal at the end of product life.

The credit points are allotted for the focus areas as applicable for the individual product categories. In case of Copper Tubes, all the three aspects such as stakeholder education and awareness, Quality Management System (QMS) for minimizing rejections after dispatch of products and extended producer responsibility are considered.

**Credit 7.1: Stakeholder Education and Awareness****Points: 2****Intent**

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

**Award of Points**

Paper packaging product manufacturer to develop and implement stakeholder specific awareness and information sharing programs for reaping the benefits of Green Products at every stage after dispatch of the product.

<b>Credits</b>	<b>Criteria</b>	<b>Credit Points</b>
<b>7</b>	<b>Product Stewardship</b>	
<b>Credit 7.1</b>	<b>Stakeholder Education and Awareness</b>	
	> 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
<b>Sub Total</b>		<b>2</b>

**Exemplary Performance**

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

**Documentation Required**

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

**Credit 7.2: Quality Management System****Points: 2****Intent**

Reduce rejection / failure rate of Copper Tubes after dispatch by implementing effective quality management system.

**Award of Points**

Establish a Quality Management System (QMS) for monitoring the quality of the product after dispatch till use and identifying root causes. Develop corrective action and preventive action plan to reduce rate of rejection / failure after dispatch.

<b>Credits</b>	<b>Criteria</b>	<b>Credit Points</b>
<b>7</b>	<b>Product Stewardship</b>	
<b>Credit 7.2</b>	<b>Quality Management System</b>	
	Minimization rejection / failure rate of Copper Tubes after dispatch	2
<b>Sub Total</b>		<b>2</b>

**Exemplary Performance**

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

**Documentation Required**

- Details of Quality Management System implemented to bring down the rejection / failure rate after the dispatch of the product.
- Details of rejection / failure rate analysis carried out by the plant team.

**Credit 7.3: Extended Producer Responsibility****Points: 6****Intent**

Encourage manufacturers to institute a mechanism for product take-back for recycling of paper packaging product at the end of useful life.

**Award of Points**

Establish a mechanism for product take-back at the end of life to promote circular economy by reusing or recycling them. Inventory on extended producer responsibility shall be maintained by the plant team to monitor the quantity of used products sent for recycling / safe disposal.

Manufacturer shall employ an environmentally friendly method to dispose of products that cannot be reused or recycled. The disposal method must comply with applicable acts & rules of the country.

<b>Credits</b>	<b>Criteria</b>	<b>Proposed Credit Points</b>
<b>7</b>	<b>Product Stewardship</b>	
<b>Credit 7.3</b>	<b>Extended Producer Responsibility</b>	
	Institute a system for product take-back at the end of life for recycling it in same supply chain or low-grade product's supply chain	6
<b>Sub Total</b>		<b>6</b>

**Exemplary Performance**

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

**Documentation Required**

- Details of mechanism adopted for product take-back at organization level.



## 8.0 Innovation

### Credit 8.1: Innovation and Awards

**Points: 5**

#### Intent

Recognize initiatives that are not addressed in GreenPro Ecolabelling scheme but have a profound impact in protecting the environment

#### Award of Points

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

- Achieve significant and measurable environmental performance using a strategy not addressed in the GreenPro standard
- Any measure exceeding the threshold of the credits that are applicable for exemplary performance
- Credentials, awards and accolades related to sustainability, energy and environmental performance improvement

Credits	Criteria	Credit Points
<b>8</b>	<b>Innovation</b>	
<b>Credit 8.1</b>	<b>Innovation and Awards</b>	
	<ul style="list-style-type: none"> <li>• Achieve significant and measurable environmental performance using a strategy not addressed in the GreenPro standard</li> <li>• Any measure exceeding the threshold of the credits that are applicable for exemplary performance</li> <li>• Credentials, awards and accolades related to sustainability, energy and environmental performance improvement</li> </ul>	5
<b>Sub Total</b>		<b>5</b>

#### Documentation Required

1. Details of innovative measures implemented highlighting the intent and benefits achieved.

## 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 around 9000 members, from the private as well as public sectors, including SMEs and MNCs, and an indirect membership of over 300,000 enterprises from around 265 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 and 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 Products, Materials 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.

*For further details, please contact:*

**Confederation of Indian Industry**

**CII-Sohrabji Godrej Green Business Centre**

Survey No 64, Kothaguda Post, R.R. Dist., Near HITEC City, Hyderabad - 500 084

Tel: +91 40 44185111 Fax: +91 40 44185189