



Confederation of Indian Industry



# **GreenPro Certification Assessment Report**

**Deeya Panel Products Pvt. Ltd.**

**June 2016**

## 'GreenPro Certification Assessment Report

Company Name: **Deeya Panel Products Pvt. Ltd.**

Product Classification: **Partition Panels**

Review date: **23/06/2016**

### Purpose

The assessment docket submitted by **Deeya Panel Products Pvt. Ltd.** for GreenPro certification of Ricron Panels was evaluated according to GreenPro certification standard. The preliminary assessment of the docket is as follows:

### Credit modules for evaluation

The report is organized into seven credit modules as defined by GreenPro rating standards for evaluation – Product Design, Raw Materials, Manufacturing Process, Waste Management, Life Cycle Approach, Product Stewardship and Innovation.

### Mandatory Requirements

Mandatory requirements must be achieved and should be addressed immediately by the team.

### Credit Points

The credits points are based on achievement of the intent of the individual credit modules.

- 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.

An assessment of whether the credit is achieved, pending, or not achieved is made and a narrative describes the basis for the assessment.

#### Attempted

81

The applicant has applied for achieving the credit points and provided the documentation as per the credit requirements.

#### Achieved

52

The documentation of these credits is complete, and the points which are considered as achieved are designated as 'CA' (Credit Achievement). These credits will be finally awarded during the Final Review.

#### Pending

The applicant has not totally satisfied the requirements, or the documentation is incomplete and point assessment cannot yet be made. Currently the product has the potential to score the adjacent points in this category with additional documentation.

#### Not Achieved

29

The applicant has applied for a point in a particular credit, but has misinterpreted the credit intent or cannot substantiate meeting the requirements. The product has not demonstrated achievement of these credits.

**Eligibility: Ricron Panels – ALPHA, DELTA, THEETA and SIGMA manufactured by DEEYA PANEL PRODUCTS PVT. LTD. qualifies for 'GreenPro' certification**

## **'GreenPro Certification Assessment Report**

*Company Name: **Deeya Panel Products Pvt. Ltd.***

*Product Classification: **Partition Panels***

*Review date: **23/06/2016***

### **Executive Summary**

Deeya Panel Products Pvt. Ltd. has applied for GreenPro – Green Product Certification of Ricron Panels manufactured in Ankleswar, Gujarat. CII appreciates the vision of Leadership in enhancing the 'Green' performance of the product and in driving the team towards achieving this objective.

With focused efforts in Research & Development, Ricron Panels is designed with a view to utilize industrial waste as a raw material. Ricron Panel finds its application in furniture, wall panels, shuttering form work in Civil works etc. By utilizing the industrial waste, Deeya Panels is mitigating the negative impacts on environment.

DPPL is operating as a 'Zero Waste Discharge' manufacturing plant and CII-Green Products and Services Council appreciates its commitment to environment friendly initiatives.

DPPL has to focus on improving resource consumption reduction during the manufacturing process including energy and utilization of renewable energy sources. The power generated through onsite renewable sources such as solar photovoltaic can be utilized to meet the lighting energy requirements within the plant. Also, planned initiatives such as rain water harvesting, heat recovery from the process are suggested to be taken up at the earliest.

Basis the site visit to the manufacturing plant and evaluation of the documentation submitted, Ricron Panels (ALFA, DELTA, THEETA and SIGMA) meet the requirements of GreenPro certification standard.

In this context, CII- Green Products and Services Council is glad to award 'GreenPro' Certification for Ricron Panels – ALPHA, DELTA, THEETA and SIGMA manufactured by Deeya Panel Products Pvt. Ltd.

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Attempted	Achieved	Pending	Not Achieved		
<b>5</b>	<b>5</b>		<b>0</b>	<b>Product Design</b>	<b>Possible credit points - 5</b>

### Requirements

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

1. *Eco Vision statement*
2. *Strategies adopted at design & manufacturing stage to achieve eco vision*
  - a. *Proof for resource allocation for improving the design of the product & manufacturing of the product*
  - b. *Details of employees and stakeholders engaged*

### Review

Deeya Panel Products Pvt. Ltd. ('DPPL') envisions an economical and useful conversion of 'Multi layer plastic with aluminum barrier layer' into a useful product 'Ricon Panels'. Ricon panels have 4 variants as on date – **ALFA, DELTA, THEETA and SIGMA**. These products serve as a substitute for wood / plywood in most of the applications.

Through the Quality, Environment and Occupational Health and Safety Policy, DPPL commits to *"Corporate Environmental Responsibility including conserving natural resources, promoting efficient use of materials, addressing water risks, minimizing pollution & GHG emissions, reducing bio-diversity impact, recycling, waste management and energy conservation"*

The Eco- vision is in line with the credit requirement. Hence, **1 credit point is awarded**.

In line with the stated environment vision, DPPL has adopted various strategies at both design and manufacturing stages;

- ✓ Design of eco-friendly reprocessed products from industrial waste
- ✓ The multilayer industrial waste is collected directly from factories. This avoids the waste from going to landfill or incinerators, where toxic gases are generated
- ✓ DPPL allocates time and resources for research & development to cover all types of pre and post use industrial waste
- ✓ Enable reduction in transportation, processing and landfilling

## 'GreenPro Certification Assessment Report

*Company Name: Deeya Panel Products Pvt. Ltd.*

*Product Classification: Partition Panels*

*Review date: 23/06/2016*

DPPL has shared the details of human resources and finances allocated towards developing the same. Also, the company has planned out various meetings with stakeholders – engineers, supply chain vendors, industrialists, Government employees, NGOs – to gather inputs on sustainable design and to explore other applications.

Basis the above, DPPL gains **4 credits** for the strategy adopted at design and manufacturing stage.

### **Technical Advice:**

1. The company wide policy should be signed by the Management Representative (MR).
2. The Quality, Environment and Occupational Health and Safety Policy should be displayed in the plant at appropriate locations.

## 'GreenPro Certification Assessment Report

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Product Classification: **Partition Panels**

Review date: **23/06/2016**

Attempted	Achieved	Pending	Not Achieved	<b>Raw Materials</b>	<b>Possible credit points - 45</b>
<b>25</b>	<b>25</b>	<input type="checkbox"/>	<b>0</b>	<b>Industrial Waste</b>	<b>Possible credit points - 25</b>

### Requirements

2.0	Raw Material	45	
<b>Mandatory Requirement*</b>	<i>Industrial waste content - 20%</i>		
<b>Credit 2.1</b>	<b><i>Industrial waste</i></b>	<b>25</b>	
	<i>Industrial waste content &gt; 20% ≤ 25%</i>		2
	<i>Industrial waste content &gt; 25% ≤ 30%</i>		4
	<i>Industrial waste content &gt; 30% ≤ 35%</i>		6
	<i>Industrial waste content &gt; 35% ≤ 40%</i>		8
	<i>Industrial waste content &gt; 40% ≤ 45%</i>		10
	<i>Industrial waste content &gt; 45% ≤ 50%</i>		12
	<i>Industrial waste content &gt; 50% ≤ 55%</i>		14
	<i>Industrial waste content &gt; 55% ≤ 60%</i>		16
	<i>Industrial waste content &gt; 60% ≤ 65%</i>		18
	<i>Industrial waste content &gt; 65% ≤ 70%</i>		21
	<i>Industrial waste ≥ 70%</i>		25

### Review

'Multi layer plastic with aluminum barrier layer' is a major industrial waste generated by industries which are into manufacturing of tubes used for toothpaste, shaving cream and in packing many medicines. The aluminum layer and Linear Low Density Polyethylene (LLDPE) cannot be reprocessed by traditional process of re-granulation as it contains metal. Such raw material ends up in land filling or in incineration.

The finished material manufactured from the use of industrial waste has applications such as Partition, paneling furniture, flooring, trays, false ceiling, civil construction shuttering form work etc. This works as a replacement for wood and plywood which is conventionally used.

The finished product uses over 90% of industrial waste as raw material. DPPL wins **25 credits** under this category.

### Technical advice

NIL

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Attempted	Achieved	Pending	Not Achieved	
<b>15</b>	<b>5</b>		<b>10</b>	<b>Utilisation of local materials</b> <span style="float: right;"><b>Possible credit points - 15</b></span>

### Requirements

*Under this credit the manufacturing facility is encouraged to source the raw materials locally*

2.0	Raw Material	45	
<b>Credit 2.2</b>	<b>Local Materials</b>	<b>15</b>	
	<i>Local material content &gt;50% ≤ 60%</i>		2
	<i>Local material content &gt;60% ≤ 70%</i>		5
	<i>Local material content &gt;70% ≤ 80%</i>		8
	<i>Local material content &gt;80% ≤ 90%</i>		11
	<i>&gt; 90% Local material content</i>		15

### Review

Installed capacity of the plant at the time of site visit is 100 tonnes per month.

Operating capacity of the plant is 80 tonnes per month. Out of the material sourced, over 60% of the material is sourced locally from the scrap merchants.

Since the % sourcing is between >60% ≤ 70%, DPPL is awarded with **5 credits** under this category.

### Technical advice

NIL

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Attempted  
Achieved  
Pending  
Not Achieved

5

5

0

**Elimination of toxic and hazardous materials Possible credit points - 5**

### Requirements

2.0	Raw Material	45	
Credit 2.3	<i>Elimination of toxic materials</i>	5	

### Review

The raw material used in making of Ricron panels are the defect pieces generated during the manufacture of toothpaste tubes, tubes for filling medicines etc. The same is observed during the site visit to the manufacturing plant of DPPL. As the tubes use food grade plastic, it is inferred that they do not contain toxic materials.

Also, DPPL has given the undertaking that the finished product does not contain any toxic materials. Hence, DPPL gains **5 credits** in this category.

### Technical advice

NIL



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Attempted	Achieved	Pending	Not Achieved	<b>Manufacturing Process</b>	<b>Possible credit points - 20</b>
<b>7</b>	<b>1</b>		<b>6</b>	<b>Energy Efficiency</b>	<b>Possible credit points - 7</b>

### Requirements

3.0	<b>Manufacturing Process</b>	20	
<b>Credit 3.1</b>	<b>Energy Efficiency</b>	7	
	<i>Monitoring the energy consumption</i>	<b>1</b>	1
	<i>Reduction in specific energy consumption <math>\geq</math> 5%</i>	<b>6</b>	2
	<i>Reduction in specific energy consumption <math>\geq</math> 10%</i>		3
	<i>Reduction in specific energy consumption <math>\geq</math> 15%</i>		4
	<i>Reduction in specific energy consumption <math>\geq</math> 20%</i>		6

### Review

DPPL has completed the 1<sup>st</sup> year of production on 31<sup>st</sup> March 2016. DPPL is planning to implement the below initiative in 2016-17;

- Heat is recovered from heat exchangers while cooling the product from 145°C to 100°C. This is planned to be utilized for material drying operation.

DPPL is awarded with **1 credit** under this category as the energy consumption is monitored.

### Technical advice

The process of manufacturing of Ricron Panels is not energy intensive. Lighting is the only other load apart from the process load. Initiative to replace CFLs with LEDs could be taken up.

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Attempted	Achieved	Pending	Not Achieved	
4	1		3	<b>Water efficiency</b> <span style="float: right;"><b>Possible credit points - 4</b></span>

### Requirements

3.0	<b>Manufacturing Process</b>	20	
<b>Credit 3.2</b>	<b>Water Efficiency</b>	4	
	<i>Monitoring the water consumption</i>		1
	<i>Reduction in water consumption</i>		1
	<i>Rain water Harvesting - Harvest 50% rainwater from Roof &amp; Non Roof areas</i>		1
	<i>Beyond the fence initiatives</i>		2

### Review

The manufacture of ricron panels is designed in a way that there is no water usage and there is no discharge of waste.

Rain water harvesting is planned for 2016-17. **1 credit** is awarded.

### Technical advice

NIL

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Attempted	Achieved	Pending	Not Achieved		
<b>0</b>	<b>0</b>		<b>0</b>	<b>Renewable Energy</b>	<b>Possible credit points - 9</b>

### Requirements

<b>3.0</b>	<b>Manufacturing Process</b>	<b>20</b>	
<b>Credit 3.3</b>	<b>Renewable Energy</b>	<b>9</b>	
	<i>On-site renewable energy generation (Both electrical &amp; thermal)</i>	<b>2</b>	
	<i>≥2.5% ≤ 5% substitution</i>		1
	<i>&gt; 5% substitution</i>		2
	<i>Off-site renewable energy generation</i>	<b>7</b>	
	<i>≥10% substitution</i>		3
	<i>≥20% substitution</i>		5
	<i>≥30% substitution</i>		7

DPPL did not attempt for this credit.

#### Technical advice

Recommend to implement roof top Solar PV. Also, the feasibility of shaded parking can be assessed. The power generated can be used to meet the lighting power requirement.

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Not Achieved  
 Pending  
 Achieved  
 Attempted

5	5		0	<b>Waste Management</b>	<b>Possible credit points - 5</b>
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### Requirements

4.0	Waste Management	5	
<b>Mandatory Requirement*</b>	<i>Segregation &amp; Inventorisation of Waste</i>	<b>1</b>	
<b>Credit 4.1</b>	<i>Waste Utilisation &amp; Disposal</i>		
	<i>Non Hazardous waste</i>	<b>2</b>	
	<i>10% reduction in specific waste disposal</i>		1
	<i>20% reduction in specific waste disposal</i>		2
	<i>Hazardous Waste</i>	<b>2</b>	
	<i>&gt; 10% waste disposed as fuel or raw material</i>		1
	<i>&gt; 20% waste disposed as fuel or raw material</i>		2

DPPL is manufacturing the products utilizing industrial waste. The waste generated from the process is again recycled. Effectively, DPPL does not generate any waste in the facility.

DPPL **wins 5 credits** for making the plant a 'Zero Waste Discharge' plant.

#### Technical Advice:

Nil

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Attempted  
 Achieved  
 Pending  
 Not Achieved

<b>0</b>	<b>0</b>			<b>Life Cycle Analysis</b>	<b>Possible credit points - 10</b>
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### Requirements

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

5.0	Life Cycle Approach	10	
<b>Credit 5.1</b>	<i>Life Cycle Analysis</i>	<b>5</b>	
<b>Credit 5.2</b>	<i>Measures taken &amp; Quantification of benefits achieved</i>	<b>5</b>	
	<i>1 Credit point for each measure</i>		

### Review

DPPL did not attempt for this credit.

### Technical advice:

Carryout Life Cycle Analysis study and identify the areas of improvement.

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Attempted	Achieved	Pending	Not Achieved		
<b>10</b>	<b>4</b>		<b>6</b>	<b>Product Stewardship</b>	<b>Possible credit points</b>

### Requirements

6.0	Product Stewardship	10	
<b>Credit 6.1</b>	<i>Education for the Stake holders on Green Products for reaping the intended benefits fully</i>	4	
<b>Credit 6.2</b>	<i>Quality management system for minimizing the rejection rate after product dispatch</i>	3	
<b>Credit 6.3</b>	<i>Extended producer responsibility to increase the recycling or safer disposal</i>	3	

#### **Education to stakeholders:**

DPPL has conducted few meetings with stakeholders such as industrial waste generators, buyers of the finished product along with advertisements in local newspapers.

#### **Quality Management system:**

DPPL does its best to reuse the rejects in the process. There is no waste discharge from the plant.

**4 credits are awarded** under this category.

#### **Technical Advice:**

1. If there is a complaint on the product quality at the end user level, DPPL to institute a system to verify and take back the product for recycling.
2. The minutes of meetings with key stakeholders should be properly documented.
3. The efforts towards educating the end customers on the benefits of the product need to be well documented.

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Attempted	Achieved	Pending	Not Achieved		
<b>5</b>	<b>1</b>		<b>4</b>	<b>Innovation</b>	<b>Possible credit points - 5</b>

### Requirements

7.0	Innovation	5	
<b>Credit 7.1</b>	<i>Innovation</i>	<b>4</b>	
	<i>Each innovative measure implemented at any stage of Life cycle will gain 1 Credit Point</i>		
<b>Credit 7.2</b>	<i>Other Credentials, Awards and Accolades</i>	<b>1</b>	

### Review

DPPL has spent over 4 years in Research & Development before developing the product. Also, it is continuously looking out for a variety of industrial waste which can be used as a raw material for developing newer products for various applications.

The efforts to innovate win **1 credit** for DPPL.

### Technical Advice:

NIL