

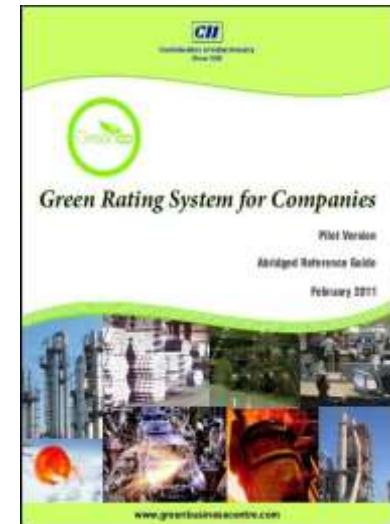


Products and Materials for Enhancing Performance of GreenCo Companies

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GreenCo – Green Company Rating

- ❖ **The system is a framework to**
 - **Define and assess the performance on the green front**
 - ❑ **How green is your company?**
 - **Holistic**
 - **Monitor and sustain “Green” initiatives**
 - **Guide phased growth**
- ❖ **‘Green Procurement’ vital for becoming Green Company**



Green Purchasing Guidelines

recognizes that purchasing practices can have a profound impact on the environment. Purchasing environmentally will help create and sustain markets and technologies that reduce waste, conserve resources, prevent pollution and protect worker health. has already established itself as a leader in green purchasing, and we are committed to continued growth in this area. Please ensure your department adheres to the following policies and plan your purchases accordingly.

- I. Purchase "environmentally friendly" products which include one or more of the following attributes:
 - A. High recycled post-consumer content
 - B. Recyclability
 - C. Durability/re-usability
 - D. Reduced packaging
 - E. Decreased use of toxic chemicals in manufacturing (e.g., chlorine, mercury, lead, etc.)

Include the following criteria in the selection of vendors:

- Commitment to supply and increase availability of environmentally sound products
- Willingness to urge their suppliers to improve their products and go beyond minimum standards
- Flexibility in reducing packaging
- Environmentally sound practices in manufacturing (pollution, toxins, employee safety)

If the cost of an environmentally preferred product exceeds that of the standard product, call the Environmental Purchasing Office at ext. 4-3470 for assistance, before placing an order.

- IV. Foster internal communication and education about environmental purchasing practices which will include, but not be limited to:
 - A. Purchasing choices, volume and pricing updates to executive management
 - B. Education and information to studio employees and purchasing staff on current purchasing practices (e.g. instruction, newsletters, product labels)
 - C. The inclusion of environmental criteria in all bid processes
- V. Require construction and demolition contractors to include in the bid process measures for salvaging and recycling of construction and demolition (C&D) waste, handling of solid and hazardous waste, and tonnage reports. In addition, the contract will require that recycled and non-toxic construction materials, as well as energy efficiency features, be incorporated as bid alternates in contracts for new construction and renovation projects.

Purchase environment friendly products which include-
High recycled post consumer content
Recyclability
Reduced packaging
Decreased use of toxic chemicals in manufacturing

Include the following criteria in the selection of vendors-
Commitment to supply and increase availability of environment friendly products

Flexibility in reducing packaging

Environmentally sound practices in manufacturing

Challenges faced by the Industry

Typical Questions

- How do I know the product is green ?
- If green, to what extent ?
- Is it green in performance (or) materials used ?
- What if the product is green in performance but not during manufacture?

Thus far...

- Extent of Green based on declarations
 - ❑ Examinee & Examiners are same
- Dependence on Certifications from other countries
 - ❑ Not fine tuned for Indian conditions

Need for India specific product certification



Green Product Certification

- ❖ Products certified based on 'Life Cycle Based' approach
 - Raw materials
 - Manufacturing Process
 - Product Performance
 - End of Life Management
- ❖ Enables Industry to choose right products and materials



Industrial Products – Broad Categories

Industry Products

Passive products and Consumables

- Insulation
- Paints and Coatings
- Cleaning Chemicals
- Plumbing fixtures
- All factory building construction products

Equipment & Systems

- Lighting
- Pumps
- Fans and Blowers
- Motors etc.

Technologies

- Energy Efficient technologies
- Water treatment
- Waste management etc.

Under Development

Available in the market



Green Industrial Paints and Coatings

❖ For Paints and Coatings – GreenPro demands for

- Very low Volatile Organic Compound
- ROHS Compliance
 - ❑ Lead, Chromium, Cadmium, Mercury
- Elimination of Formaldehyde



**"THERE IS NO
KNOWN LEVEL
OF LEAD
EXPOSURE THAT
IS CONSIDERED
SAFE."**

World Health Organization

www.meritalliance.com



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Paints Vs Green Paints

Parameters	Paints	Green Paints
Volatile Organic Compound (VOC) in mg/lit	>100	10-50
Presence of Heavy metals – Lead, Cadmium, Chromium and mercury	Yes	< 0.1 % (or) 1000 ppm
Formaldehyde	High	< 0.1%

GreenPro Encourages water based Paints and elimination of solvents

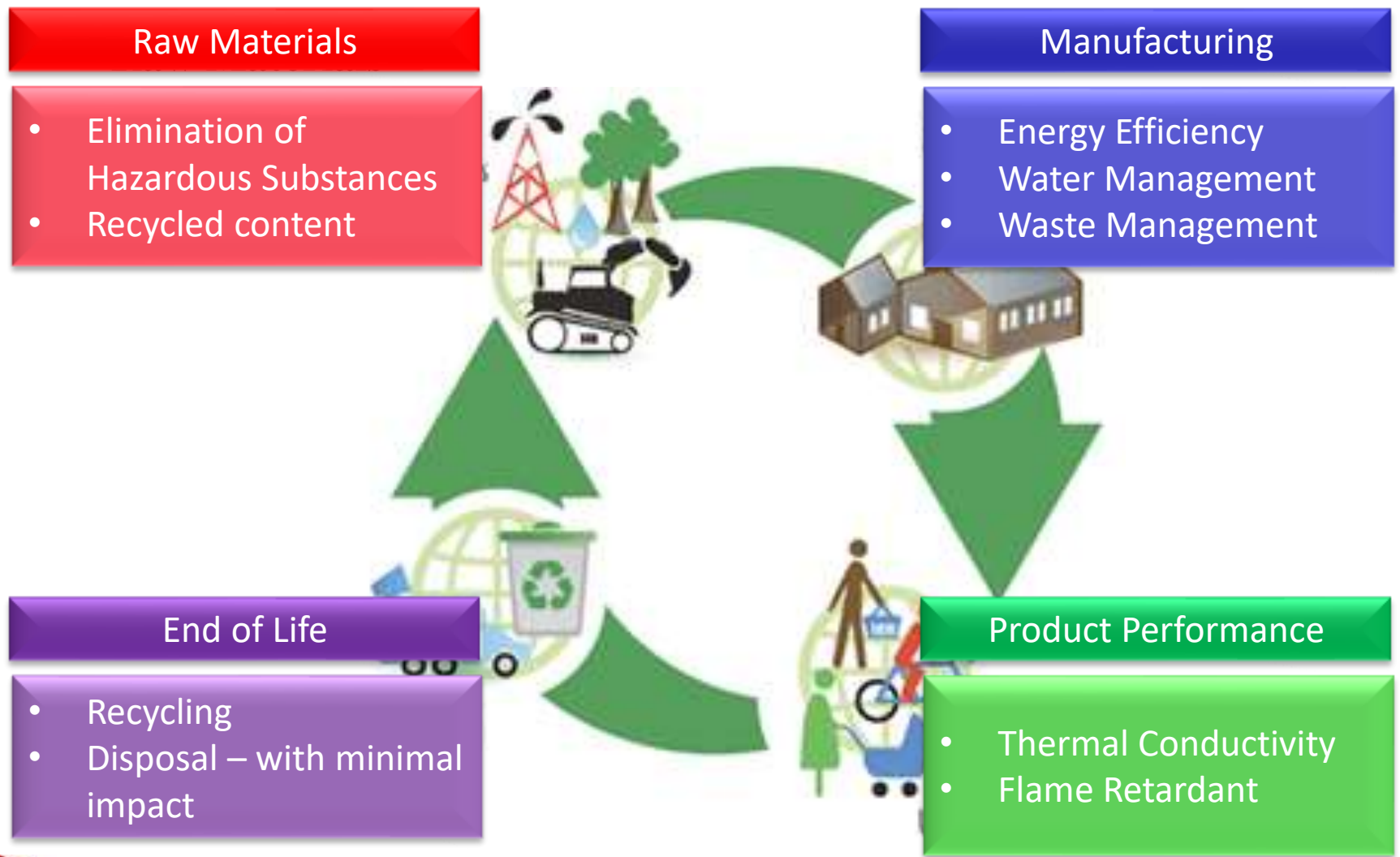


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Passive Products and Consumables

Eg: Insulation



Materials & Resources

- ❖ To bring down virgin material consumption through
 - Recycling
 - Utilization of Industrial waste
- ❖ Use local materials
- ❖ Ensures elimination of Toxic, Hazardous & Carcinogenic materials



Green Cement & Concrete

- ❖ Utilizes maximum Industrial waste
 - PPC – Fly ash based cement
(upto 35%)
 - PSC – Slag Cement
(upto 70%)
- ❖ Low GHG emission per ton of Cement produced
- ❖ Minimum utilization of natural resources



Benefits to Industrial Consumers

- ❖ **Make lives Easier**
 - **No due diligence is required**
 - **Time & Effort saved**
- ❖ **Assured environment performance**
- ❖ **Increased resource conservation**
- ❖ **Reduction in operating cost**
- ❖ **Ultimately enhances Green Performance of Green Company**





Over **375**
Certified products
available for
Green Buildings

'GreenPro' Certified

Architectural Products



Boards & Plaster



Cement



Construction Blocks & Panels



Construction & Cleaning Chemicals



Glass Products

Interior

Ground Granulated Blast Furnace Slag



Low Density Aggregate



WPC Products



IAQ



Insulation Products

Paints & Coatings



Tiles

Supporting Council and Organisations



□ More than 375 green building products certified

□ Under 18 Product Categories



GreenPro Receives Global Recognition

❖ GreenPro accredited by
Global Ecolabelling Network (GEN)

▣ GreenPro standards at par with
International Standards

▣ Increased export opportunities for
GreenPro certified products



Ask for 'GreenPro' certified products...



INSU SHIELD, SOUND XLO & REFLECTOR ROLL PACKING



Dalmia Bharat Cement

THE GREENEST CEMENT IN THE WORLD ACHIEVES THE HIGHEST GROWTH

India's Bharat, which has the Greenest Cement in the world, has registered a historic growth of 20% in comparison to the Indian cement industry's growth of 4%.

Particulars	Q3 FY16	Q3 FY17	Growth
Production (LAKH)	2,88	3,43	18%
Crushed Stones (LAKH)	1,036	1,248	18%
CRUSHED STONES	318	411	28%
NET	76	112	47%
NET	83	119	43%
Cost Per Tonne	339	373	10%
PRODUCTIVITY	1,100	1,235	12%



To conclude...

- **Use of Green Products, Materials and technologies enhances performance of Green Companies**
 - ▣ **Leads to significant benefits**
- **GreenPro – enables Industrial end users to choose right products and materials**
- **Complements ‘Green Company’ movement in the country**

