

## **WPC (Wood polymer composites)**

The term "wood-plastic composites" (WPCs) globally refers to wood as a proxy for fibrous materials of plant origin. It can be wood flour or sawdust, or agricultural plant residues, typically cut, milled, or ground, or other types of natural fibre, such as hemp, jute, and kenaf, commonly as a by-product of the respective industrial process as per global terminology.

Wood-plastics composites (WPC) are a new group of materials that are generating interest in both the overseas and in India now. The term 'WPC' covers an extremely wide range of composite materials using plastics ranging from polypropylene to PVC and binders/fillers ranging from wood flour to flax. These new materials extend the current concept of 'wood composites' from the traditional compressed materials such as particle-board and medium density fibreboard (MDF) into new areas and, more importantly, a new generation of high performance products.

### **The benefits of WPCs**

WPCs can produce the final shape through extrusion processing. This maximises resource efficiency and gives design flexibility for improved fastening, stiffening, reinforcement, finishing and joining. WPCs are wood products that need no further processing. WPCs are weather, water and mould resistant for outdoor applications where untreated timber products are unsuitable. WPCs are plastic products with exceptional environmental credential and performance. WPCs have a wide range of applications. They can cost effectively replace wood products in applications such as furniture, doorframes, decorative profiles, in fact anywhere wood shapes are used. They can cost-effectively replace plastic products in applications such as window frames, cable trenching, roofline products and cladding, in fact anywhere that plastics shapes are used.

### **WPCs have many benefits:**

- They are true hybrid materials and combine the best properties of both wood and plastics.
- They use low cost and plentiful raw materials.
- Wood waste and recycled plastics become assets instead of liabilities.
- They are competitively priced and are competitive with traditional materials such as timber, MDF and PVC-U.
- They are easily produced and easily fabricated using traditional wood processing techniques.
- They are available in a broad range of finishes and appearances.
- They are easily recycled after use.

### **Indian manufacturers**

Hardyplast

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