



**Fairdeal**  
Polymers



Fairdeal Polymers Pvt. Ltd.

Bangalore, INDIA.

[www.fdpoly.com](http://www.fdpoly.com)

## About Us

Fairdeal Polymers is primarily engaged in manufacturing and processing of Ultrona<sup>®</sup> UHMW-PE rods, sheets, and components. Over and above manufacturing of Ultrona<sup>®</sup> UHMW-PE, we stock various other materials in bar-stock and sheets, which allows us to cater to a wide range of applications, engineering optimisations and price points. We also undertake design and development of polymer components to potentially replace metal counter-parts, in order to economise mechanical designs, make them light-weight, without any compromise in performance or structural integrity.

## ULTRONA<sup>®</sup> UHMW-PE

Ultrona<sup>®</sup> Ultra-High Molecular Weight Polyethylene is a Category of thermoplastic, ethylene-based polymer, which is known for its superior toughness, strength, abrasion resistance and ability to withstand sub-zero temperatures. Apart from the mainstream advantages (like chemical resistance, lower density etc) offered by the widely popular High-Density Polyethylene, Ultrona<sup>®</sup> Stands out from the conventional polyethylene and most other engineering polymers due to many of its advantages. The higher molecular weight of polyethylene molecules separates Ultrona<sup>®</sup> from its polyethylene counterparts as well as other engineering plastics, under many parameters.



## Characteristics Of ULTRONA®



High Abrasion Resistance



Resistance to acids & alkali



Self-lubricating



Superior impact strength



Low coefficient of friction



Zero water absorption



Food-grade compatible



Sub-zero compatible

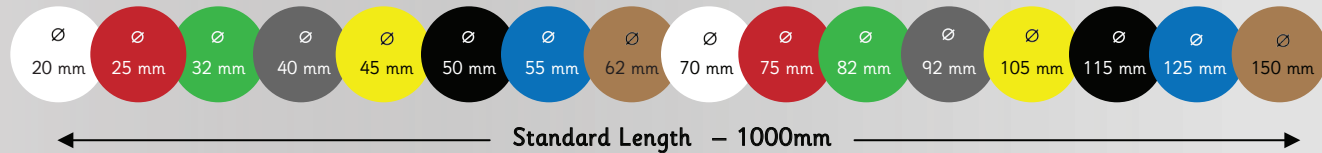
## Our Products

- Ultrona® Bar stock – Cylindrical, Square and Rectangular rods, Sheets
- Ultrona® Sandwich panel forming blocks
- Ultrona® Wear Pads and Wear Liners
- Ultrona® Conveyor Rollers, Sprockets and Star Wheels
- Ultrona® Trolley Wheels
- Ultrona® Wire drawing pulleys
- C-Ultrona® Pulleys and Rollers (Ceramic impregnated Ultrona® for higher wear resistance)
- AS-Ultrona® Components, Work bench liners (Antistatic Ultrona® for electrical hazardous applications)
- Engineering Polymer Components
  - Bevel Gears, Pinions, Racks and Sprockets in Cast-Polyamide, Polyoxymethylene
  - Cast Polyurethane Rollers, Washers, Gaskets and Guide Rails
  - PTFE packing gaskets
  - PEEK guide rails

## ULTRONA® Ram Extruded Rods

Fairdeal Polymers has been a pioneer in the processing and supplying premium quality Ultrona® UHMW-PE Ram Extruded rods to different parts of India, Middle-East and Europe. Our automated and state-of-the art RAM extruders ensure optimum compaction of the UHMW-PE powder followed by a carefully controlled heating and cooling cycle to achieve top notch quality and consistency. Ultrona® rods are made of 100% virgin grade UHMW-PE (with a choice of filled grades), over a wide range of dimensions and sizes. Molecular-weight of Ultrona® rods is generally in between 4.5 Million to 7 Million g/mol.

### Standard dimensions & colours available

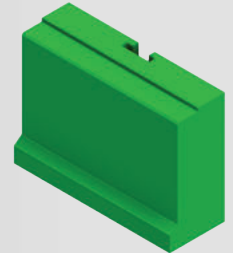
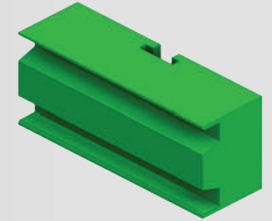
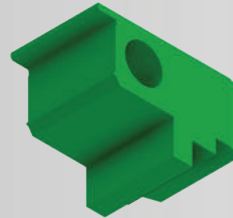
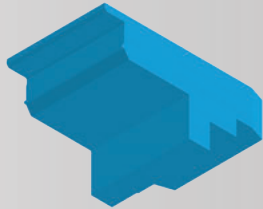


### Options Available:

- Un-standard lengths
- Customer specific/matching color
- ESD (Anti-static) filling
- Ceramic filling
- Rectangular / trapezoidal / square geometries
- Higher Molecular Weight (subject to market availability)

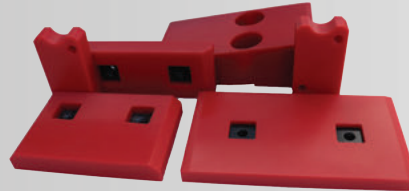
## ULTRONA® Sandwich Panel Blocks

- Ultrona® Sandwich Panel Blocks are extensively used in the manufacturing of PUF sandwich panel sheets, used in cold-storage, insulated rooms etc.
- Ultrona®'s characteristics of high wear resistance, low frictional co-efficient and low weight gives it an edge over many other qualifying materials for this application.
- Fairdeal Polymers has been actively involved in manufacturing of these blocks, which call for high dimensional accuracy, repeatability in dimensions over high quantities. We have deployed a large number of Moulding, Extrusion and CNC operated vertical machining centers for the machining of these parts.
- We have also developed profiles for our existing customers and added more sizes of these blocks into their portfolio.
- Our customer base for Ultrona® Sandwich Panel Blocks is present in India, UAE, Europe and South Korea.



## ULTRONA® Wear Pads & Wear Liners

- Wear Pads are used in a variety of engineering applications to avoid potential metal-to-metal sliding or rubbing action.
- Wear Pads and Liners made from Ultrona® provide superior sliding movement between metal parts, protect and improve longevity of base metal parts
- Our R&D team has meticulously worked and developed dedicated extrusion dies and cutters to optimize and streamline production, resulting in reduced machining cost, time.





## ULTRONA® Trolley Wheels, Rollers and Pulleys

- The advantage of lower frictional resistance and higher wear resistance makes Ultrona® an ideal choice for the application of trolley wheels, rollers and wire drawing pulleys.
- Additionally, Ultrona® trolley wheels do not impart any impression or damage the floor in any way.
- A wide range of sizes and profiles are on offer
- Trolley wheel sizes vary from as small as 2" diameter to 16" diameter. Higher sizes can also be done upon request.
- Wire drawing pulleys are a very popular application for Ultrona®. Its chemically inert nature makes it an ideal material of choice for wire drawing in chemical baths.
- Conveyor rollers, Idler Rollers, Star Wheels, Sprockets etc are also made in Ultrona® to potentially replace metallic equivalents, thus optimizing the machine working.
- Pulleys made from Ceramic infused Ultrona® are also made to suit applications which require very high resistance to friction and rigidity.



# ULTRONA<sup>®</sup> v/s Other Engg. Polymers

# Applications of ULTRONA<sup>®</sup>

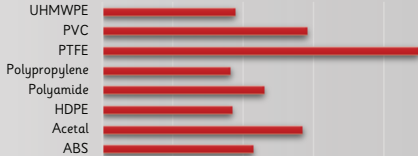
**Impact Strength (J/m)**



**Water absorption (%)**



**Density (g/cc)**



**Frictional Co-eff**



Agro-machinery



SPMs / Conveyors



Sports Equipment



Military Equipment



Bottling & Brewery



Mining & Construction



Marine fenders



Food machinery



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