# JD22010

## LINEAR LOW DENSITY POLYETHYLENE

**FOR DRIP LATERALS**

Relene JD22010 is a Butene co-monomer based Linear Low Density Polyethylene (LLDPE), for Drip lateral applications. Drip laterals produced using this grade have outstanding processability, tensile and elongation properties. This grade meets the requirements of material as per IS 12786: 2024 on 'Irrigation equipment-Polyethylene pipes for irrigation laterals specification'. When incorporated with adequate quantity of carbon black as specified in clause 4.1 of IS 12786: 2024, the pipe made from this grade will meet the creep rupture stress requirement of PE-25 class.

**BIS Designation Code: IS 7328-2B-NB-BDA**

## Typical Characteristics

| Property | Test Method | Unit | Typical Value* |
|---|---|---|---|
| Melt Flow Rate (190°C/ 2.16 kg) | ASTM D1238 | g/10 min | 1.1 |
| Density | ASTM D792 | $g/cm^3$ | 0.922 |
| Tensile Strength at Break | ASTM D638 | MPa | 20 |
| Elongation at Break | ASTM D638 | % | 1000 |
| Environmental Stress Crack ( $F_{50}$, 10% Igepal, 50°C) | ASTM D1693 | Hr | >1000 |
| Haze | ASTM D1003 | % | 14 |

* Typical values, not to be taken as specification. Mechanical properties are done on Compression Molded Specimen in accordance with ASTM D4976.

## Typical Processing Conditions

Processing temperatures: 180 - 220 $^{O}$C

Note: Processing parameters mentioned above are for reference only and not to be considered as specifications. They may vary based on the product to be manufactured.

## Applications

For flat and round drip laterals

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Updated as of April 2026

## Regulatory Information

The product complies with Indian Standard IS 10146 on “Specification for Polyethylene for safe use in contact with foodstuffs, pharmaceuticals, and drinking water.” It also conforms to IS 16738:2018 on “Positive list of constituents for polypropylene, polyethylene and their copolymers for its safe use in contact with foodstuffs and pharmaceuticals.”

The grade and the additives incorporated in it also comply with the FDA:CFR Title 21,177.1520, Olefin polymers.

Not to be used in the manufacture of Single Use Plastic (SUP) items prohibited under PWM Rules, 2016.

## Storage Recommendations

Bags should be stored in dry / closed conditions at temperatures below 50°C and protected from UV / direct sunlight

## *DISCLAIMER*

*The information contained herein may include typical properties and processing parameters of the grade or its typical performances when used in respective applications. The values given above are based on analysis of representative samples and not the actual product supplied. It is the customer’s responsibility to inspect and test our grades in order to satisfy itself as to the suitability of the products for customers’ particular application. The customer is solely responsible for all determinations regarding any use of material or product and any process in its area of interest. RIL assumes no obligation or liability for any loss, damage or injury directly or indirectly suffered or incurred as a result of using any of the information or product given in this document. The information and data presented herein is true and accurate to the best of our knowledge. No warranty or guarantee expressed or implied, is made regarding performance or otherwise. This information and data may not be considered as a suggestion to use our products without taking into account existing patents, or legal provisions or regulations, whether national or international. The user of any information and/or data is advised to obtain the latest details from any of the offices of the company or its authorized agents, as the information and/or data is subject to change based on the research and development work undertaken by the company.*