



## *Technical sheet*

# **DURATOUGH 215-M<sup>®</sup>**

<b>End use</b>	Primarily used as a greenhouse or Animal shelter covering , non-pigmented natural colour polythene film for general use vegetable and flower crops.
<b>Product Description</b>	A long life translucent non pigmented high light transmission greenhouse or animal shelter film suitable for use in either singleskin or twinskin applications. Duratough is U.V. stabilized and anti-condensation treated on one side
<b>Warranty</b>	4 season pro rata ultra violet warranty (conditions do apply).
<b>Sizes/Widths/Lengths</b>	Available widths: 2m, 3m, 4m, 5m, 6.05m, 7m, 8.05m, 9.2m, 10.5m , 12m, 13.1m & 14.5m. Width tolerance +0/-100mm. Rolls are cut to length to customer order +500mm/-250mm
<b>Nominal Thickness</b>	215 microns + 0 / - 10%
<b>Structural Properties</b>	<p>Duratough has a three layer construction and is engineered to remain transparent and resist discolouring for up to 4 seasons. Light transmission as an average across the width is up to 90% +0/-5% (nominal), Diffusion as an average across the width is 21% +10 /-0%. (nominal) . Typical service life 7-10 years when used within the warranty conditions.</p> <p>Duratough contains Metallocene strengthener additive. Film will exhibit to the eye Fold lines, Manufacturing slip agent &amp; Anti fog residues that can exude from the polymer prior to, during or after installation.</p> <p>This product is extruded on a co-extrusion machine with three layers that become bonded together. All layers are U.V. stabilized.</p> <p>The outer layer polyethylene has increased EVA content for good clarity. Slip additive is included within the polymers extrusion to assist with unfurling and installation.</p> <p>The middle layer is made of Linear Low Density Polyethylene which gives Duratough good strength, and is a higher strength LLDPE (Linear low density polyethylene).</p> <p>The inside layer polyethylene has EVA content for good clarity, The name and production code is printed onto the inside face. Anti-condensate is also included within the polymer and also exudes over time. Anti Condensate performance will reduce over the life cycle of the film</p>
<b>Other Accessories</b>	Compatible with most all modern film clipping systems, greenhouse deigns (check with supplier / installer before use)/ Use Lockstrip or Duralock to hold Duratough onto the framework. Use Polyguard lagging tape to protect Duratough from wearing on the structure

## PRODUCT SPECIFICATION SHEET

### 1. General information

Product: **DURATOUGH 215**  
 Description: Transparent co-extruded 3-layer film stabilized with HALS with a percentage of E.V.A. and anti-fog & Metallocene package. Natural non-pigmented clear.  
 Application: Greenhouse or Animal cover  
 Typical properties: High strength, Heavy duty, Anti-fog



### 2. Technical data

Property			Typical value		
Resin (s), Recycle number code is printed onto the film			m-LLDPE, EVA, LDPE		
Nominal Thickness			0.215 mm = +0/- 10%		
Average thickness measured across the width/length			+0 / -10%		
Thickness tolerance at any point			+0 / - 10%		
Tensile at break	(EN ISO 527-3)	MD	27 Mpa	+0 /-10%	
		TD	29 Mpa	+0 /-10%	
Elongated at break	(EN ISO 527-3)	MD	600%	+0 /-10%	
		TD	680%	+0 /-10%	
Total light transmission measured as an average across the full width / length (400-700nm) (EN 2155-5)			90% +0 /-5%	ASTM D 1003	
Diffuse light transmission measured as an average across the full width / length (400-700nm) (EN 2155-9)			<21% +10 / -0%	ASTM D 1003	
Infrared transmission	(7-13 u)	(EN 13206 S8.9)	<15%+/-5%	EN13206 s8.8	

MD = machine direction TD = transversal direction

### 3. Functional information

Product: Duratough 215, Specifications and values are conservative / nominal  
 Attention: Always follow Redpath greenhouse film handling and installation guidelines. Special attention should also be paid when opening the packaging, as incidental cutting of straps may damage the film.  
 Storage: The product must be stored indoors and should be used within 3 years after delivery.  
 Use: Redpath will not be liable to claims or restitutions when the product is used in combination with too high a concentration of chlorine or Sulphur, Iron, Chlorine, Zinc or any listed item as shown on the installation user guidelines. Avoid contact with Tanalith, PVC components. Please read the installation guidelines before use. Duratough will exhibit variable diffusion characteristics due to the cropping benefit additives used.  
 Maintenance: Repair any holes or tears promptly, Clean with appropriate cleaners only (do not use Chlorine, Acid, or Petroleum based cleaners)  
 Disposal: The product should be disposed of in an environmental friendly way. Recycle number is printed onto the film  
 Contact: Free Ph 0508 733 728 or Email [redpath@redpath.co.nz](mailto:redpath@redpath.co.nz)