



HydroForce Extend

Highly Concentrated Residual Soil Surfactant

Formulated in Australia



Product Overview

HydroForce Extend is a 100% non-ionic, residual surfactant formulation for long term prevention of localised dry spot occurrence. HydroForce Extend is unmatched in its residual performance capabilities in both sandy and finer textured soil profiles. HydroForce Extend also has excellent warm and cool season turf safety characteristics and can be used in all forms of turf management, where residual properties are required.

The molecule in HydroForce Extend is an EO/PO block co-polymer, which is a non-ionic surfactant containing ethylene oxide and propylene oxide units. EO/PO block co-polymers allow for efficient wetting because the water hating end (hydrophobic end) of the surfactant attaches itself to the water repellent sand or soil particle by physical adsorption, providing an anchor which allows the more water soluble (hydrophilic) end to extend into pore space and absorb water onto the soil's surface. The Chemical structure of the HydroForce Extend molecule is as follows;

CH₃

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HO(CH₂CH₂O)_x(CHCH₂P)_y(CH₂CHO)_zH

The large, heavy molecular weighted nature of the surfactant molecule, is what gives HydroForce Extend its residual performance characteristics. Microbial decomposition takes several months, due to the complexity of it's molecular structure and mass.

Key Features

- > Highest quality, 100% Block Co-Polymer Surfactant Formulation.
- > Excellent Residual Performance.
- > Non burn formulation, minimal interaction with the plant's cuticle.
- > 100% concentration of surfactant. Maximises molecule output and performance.
- > Reduces irrigation requirements by increasing the rate and depth of water penetration.
- > Flexibility in rate, dependent upon intensity of use.
- > Manufactured and developed in Australia for the harshest of climatic conditions.



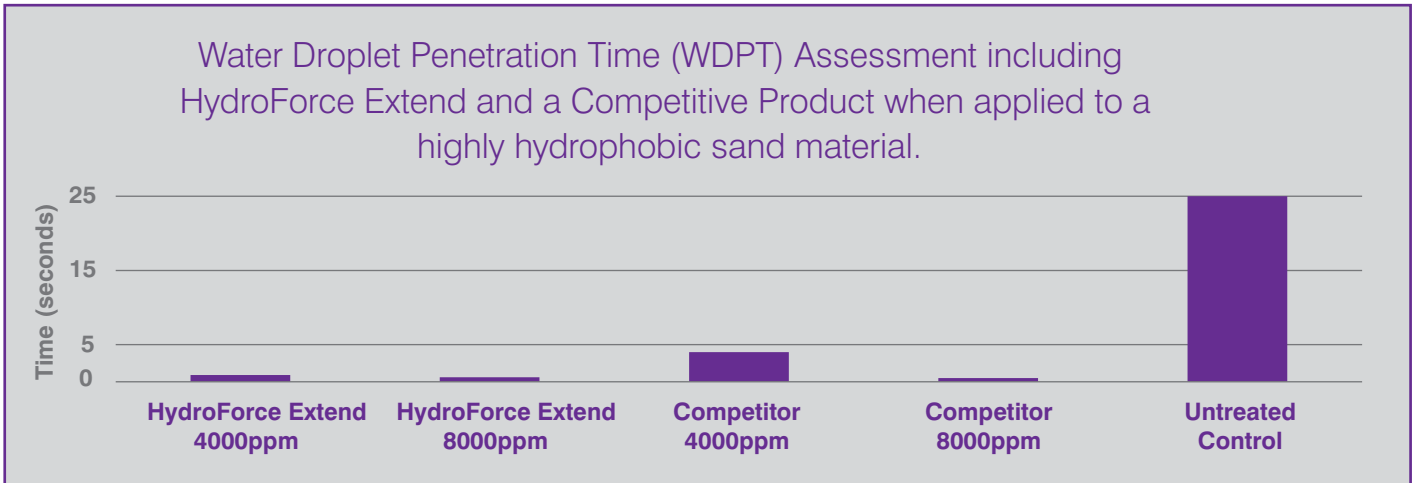
Excellent Residual Activity

The below trial was established to determine wetting agent performance on a hydrophobic soil material over an extended period of time (kept in greenhouse conditions). At each month, water droplet penetration tests (WDPT) were undertaken, with the below results recorded. It clearly indicates that HydroForce Extend had improved performance over the untreated control at all assessment dates over the six month evaluation period. This confirms that HydroForce Extend has excellent residual and rewetting qualities.

Treatment	WDPT* (seconds) Per Month						Average
	1	2	3	4	5	6	
Untreated Control	45	47	44	44	45	51	46.00
HydroForce Extend	16	23	25	26	28	31	24.83

*WDPT – Water droplet penetration time: Seconds required to penetrate a highly hydrophobic sand.

Improved Water Droplet Penetration



HydroForce Extend – Application Details

Situation	Rate per 100m ²	Rate per hectare	Comments
Preventative application of Localised Dry Spot in Sportsfields and Fairways	250 - 500mL	25 - 50L	Apply in no less than 400L/ha of water. Irrigation is not critical but is recommended to ensure product effectiveness. Repeat treatments at the desired application frequency.
Preventative application of LDS in Greens & Tees	200 - 400mL	20 - 40L	Apply in no less than 400L/ha of water. Irrigation is not critical but is recommended to ensure product effectiveness. Repeat treatments at the desired application frequency.
Curative application of Localised Dry Spot (Green, Tees, Fairways and Sportsfields)	400 - 500mL	40 - 50L	Apply in no less than 400L/ha of water. Irrigation is not critical but is recommended to ensure rapid hydration of the profile. Repeat applications fortnightly and continue as required until recovery occurs.
Ornamental Garden Beds & Landscaped Areas	15mL per 10L of water		Sufficient to drench area of up to 5m ² . Water in well following application. Apply as necessary.