

# Soltellus™ 2101S / 2101L

A Biodegradable Polymer that Improves Laundry Stain Removal

## Overview

Soltellus™ polymer is an anionic, multifunctional polymer produced by the polymerisation of aspartic acid. It's biodegradable with superior stain fighting properties, which is the #1 attribute consumers seek in their laundry detergent. Soltellus™ is compatible with enzymes and is a highly effective replacement for polyacrylate in laundry detergents

### CONSUMER BENEFITS

- Superior stain removal (including blood)
- Performs in cold water temperatures
- Performs in hard water conditions
- Biodegradable

### DEVELOPER BENEFITS

- Anti-redeposition
- Sequestrant
- Dispersant
- Water soluble
- Cold water process
- Compatible and synergistic with a wide variety of ingredients
- Weight efficiency

### APPLICATIONS

- Laundry detergent including liquid, powder and packs
- Laundry booster

# 1%

1% Soltellus performed as well as 5% polyacrylate in soft water

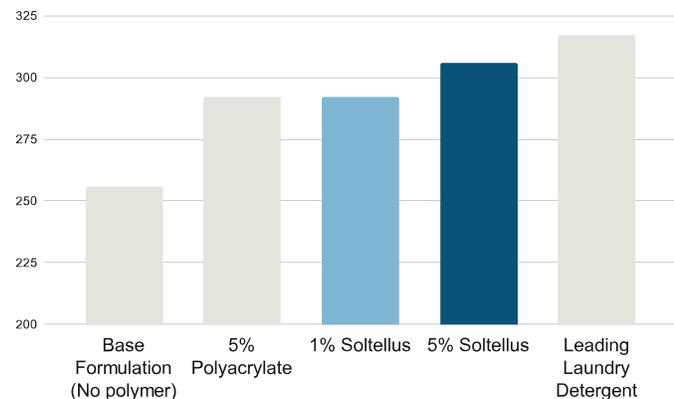
# 5%

5% Soltellus performed as well as the #1 conventional laundry detergent in hard water

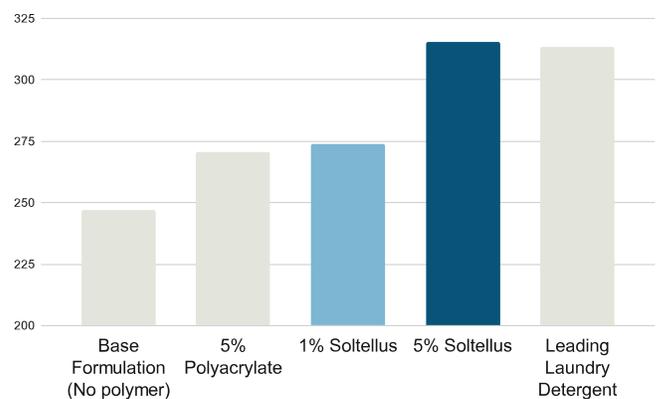
## Superior Stain Removal Even in Cold Water

Soltellus enhances stain removal in cold water on enzyme sensitive stains, oily stains and particulates.

### Aggregate Stain Removal in Soft Water



### Aggregate Stain Removal in Hard Water



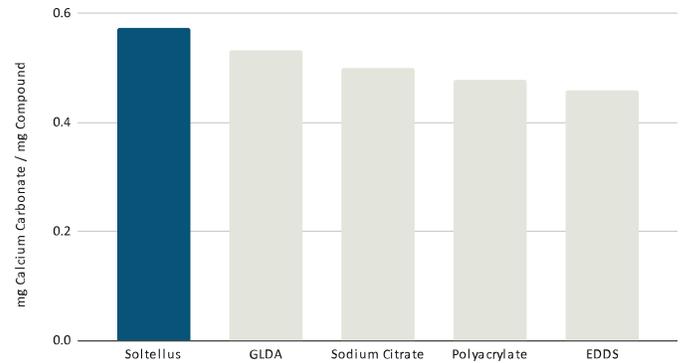
Source: Tandell Research Lab, Whirlpool, front loader, ASTM- D4265-14  
Table 1) 20 common stains, front loader at 16°, 110 ppm CaCO<sub>3</sub>  
Table 2) 20 common stains, front loader at 16°, 330 ppm CaCO<sub>3</sub>

## Performs in Hard Water

Soltellus disperses minerals in hard water and binds hard water ions, preventing the formation of an insoluble complex with surfactants, stains in solution and stains on fabrics, improving overall product performance:

- 13% better than Sodium Citrate
- 17% better than Polyacrylate

## Calcium Carbonate Dispersion

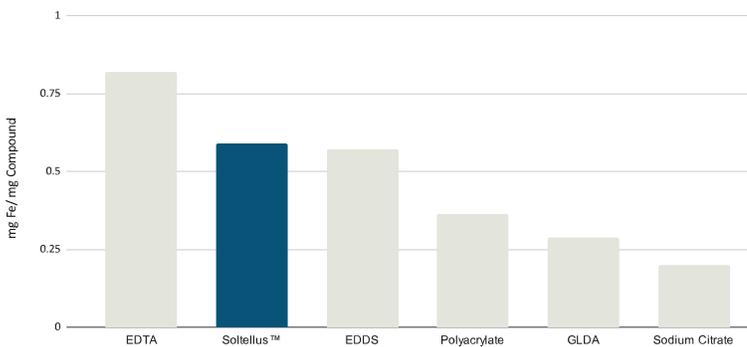


## Effective Sequestrant

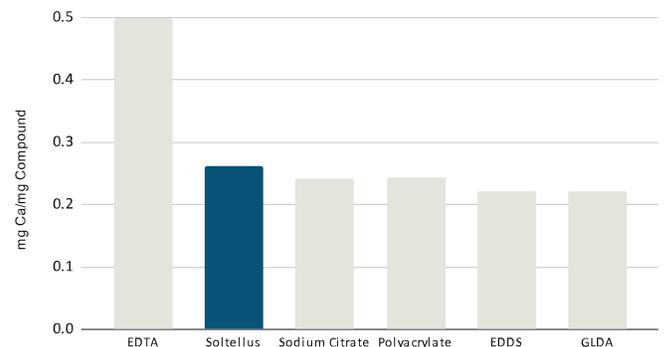
Soltellus proven to effectively chelate iron and calcium:

- Comparable activity to EDDS on iron and superior to polyacrylate (38%), GLDA (51%) and sodium citrate (66%)
- Comparable performance to other biodegradable chelants on calcium
- Removes stubborn blood stains

## Iron Sequestering Capacity



## Calcium Sequestering Capacity



Calcium and Iron binding: Lygos internal lab testing via ion selective electrodes for calcium and optically using 2,2'-bipyridine iron indicator for iron detection. Calcium carbonate dispersion (anti-scaling): Lygos internal lab testing via turbidity measurement @pH 9

EDTA: Ethylenediamine tetracetic acid; IDS: Iminodisuccinate, EDDS: Ethylenediamine, disuccinic acid; GLDA: L-glutamic, diacetic acid

## Available in

Soltellus™ 2101S	Sodium polyaspartate	Low Color Powder (85% actives)
Soltellus™ 2101L	Sodium polyaspartate	Low Color Liquid (35% actives)