

REVITALENZ® 2000 – 2020 SERIES

Cellulase for use in powder laundry products

TECHNICAL
DATA SHEET

INTRODUCTION

REVITALENZ® 2000 series products are endoglucanases for use in powder laundry products. Adding a cellulase to a detergent is useful for the prevention and removal of broken cellulose fibers - 'pills' - which form on cotton fabrics. These pills give the fabric a worn and faded look. REVITALENZ® 2000 series products effectively hydrolyze these cotton pills and prevent formation of new pills during the wash process. The reaction products are short cellulose chains that are transported away from the fabric via the wash liquor. This helps to enhance color, whiteness and leaves the cotton surface looking smooth and new. REVITALENZ® 2000 series products are the most effective way of protecting and renewing garments that are vulnerable to pilling.

TYPICAL PRODUCT CHARACTERISTICS/PROPERTIES

REVITALENZ® 2000 SERIES ARE AVAILABLE IN TWO ENZYME CONCENTRATIONS:

| PRODUCT | REVITALENZ® 2000 | REVITALENZ® 2020 |
|--------------------------------------|------------------------|------------------------|
| Min. activity ¹ [DXSTU/g] | 2,925 | 11,700 |
| Product form | Free flowing granulate | Free flowing granulate |
| Appearance | Off-white granules | Off-white granules |
| Bulk density [g/ml] | 1.1 – 1.4 | 1.1 – 1.4 |

STORAGE AND STABILITY

Recommend to store ambient, not exceeding 25°C. Packaging must be kept intact, dry, and away from sunlight. This product is formulated for maximum storage stability. Specific product storage stability data is available upon request.

PACKAGING

REVITALENZ® 2000 series products are available in different types of packaging. Please contact your sales representative for details.

COMPOSITION

The granulate contains enzyme concentrate, inorganic salts and coating materials. Detailed composition data may be made available, please contact your sales representative for more information.

USAGE RECOMMENDATIONS

Application

REVITALENZ® 2000 series cellulases provide robust fabric care properties for temperatures up to 50 degree Celsius and pH up to 11. Results at higher temperatures may be more dependent on application and formulation specific conditions. (figure 1)

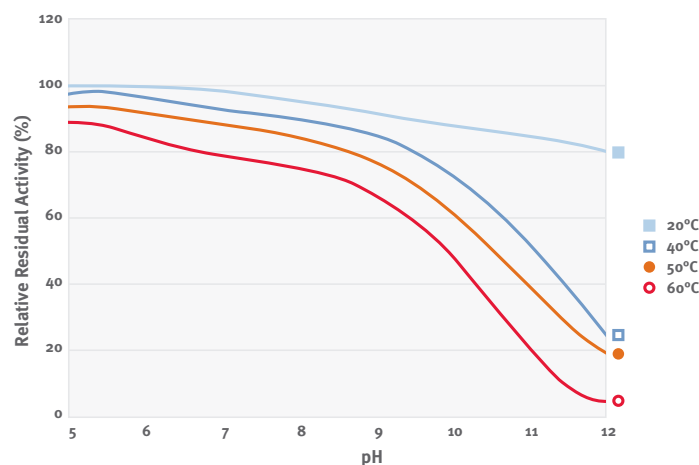


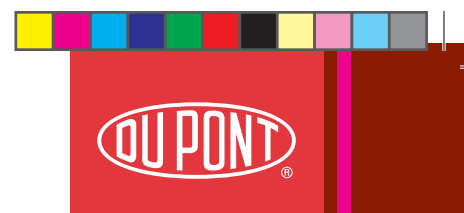
Figure 1: Residual activity of REVITALENZ® 2000 series products in function of pH and temperature. Method: Incubation of enzyme in buffer for 20 minutes at various pH and temperatures, followed by an activity assay¹.

Dosage

Recommended dosage of REVITALENZ® 2000 is 20 – 50 DXSTU per liter of wash liquor. Exact dosage should be based upon wash conditions, detergent formulation, detergent dosing and the desired level of performance.



¹ Assay methodology is available upon request.



PRODUCT AND MANUFACTURING CERTIFICATIONS

ISO 9001, Kosher

This product does not contain genetically engineered organisms. The enzyme product is manufactured by fermentation of microorganisms that are not present in the final product. The production organisms and the enzyme effectiveness are improved by means of modern biotechnology.

For more information about our commitment to quality, visit:
<http://biosciences.dupont.com/about-us/operations/quality-control/>

SAFETY AND ENZYME HANDLING

Inhalation of dust from granulated enzymes should be avoided. In case of accidental spillage or contact with the skin or eyes, promptly rinse with water for at least 15 minutes. For detailed handling information, please refer to the appropriate Material Safety Data Sheet, the Enzyme Technical Association (ETA) handbook Working Safely With Enzymes, and the Association of Manufacturers of Fermentation Enzyme Products (Amfep) handbook Guide to the Safe Handling of Microbial Enzyme Preparations, and the Soap and Detergent Association (SDA) handbook Work Practices for Handling Enzymes in the Detergent Industry.

CONTACT INFORMATION

For more information, please contact your sales representative, a member of the DuPont Home- and Personal Care team or visit our website at:
fhc.biosciences.dupont.com

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