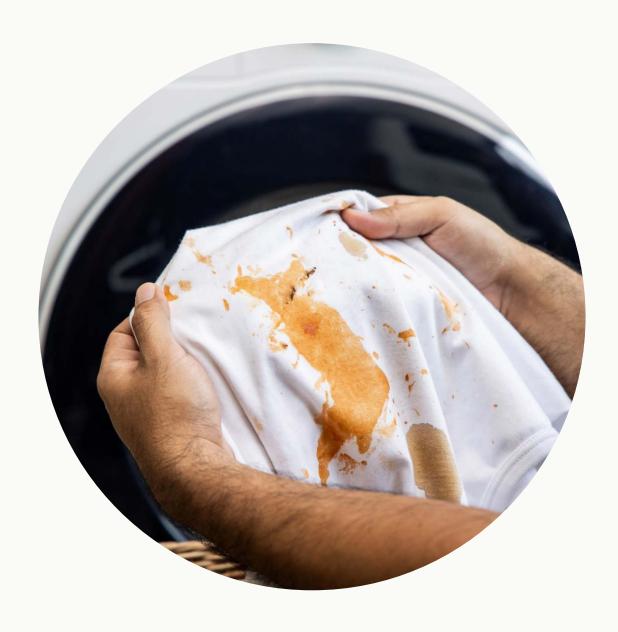
## **BD Bioenzym Det**

Discover our versatile range of enzymatic solutions for detergency market.







# From Barcelonesa's Detergency division we work to offer our customers solutions for an efficient and sustainable formula.

From the Detergency division of Barcelonesa, a company with more than 80 years of history that is part of the Barcelonesa Group, we search for and develop the raw materials necessary for our customers' formulas. We work to offer guaranteed solutions to the professional and domestic detergency sector.

If you need it, we can also prepare concentrated bases or propose alternatives to an ingredient you use, in order for you to obtain the Ecolabel certificate or to make its CLP classification less aggressive.

We are convinced that a clean environment has a positive impact on people's well-being, and chemistry is the basis for more effective and safer cleaning and hygiene. That is why we support innovation by offering different solutions for new needs and being environmentally friendly.



## Wide range of products

In Barcelonesa we have a wide range of products and solutions for the detergency market, guaranteeing the highest quality standards.



#### Technical advice

In addition to offering you a wide range of raw materials, we want to contribute to the successful development of your finished products with the help of our technical support.



## Manufacturing custom-made

We offer our customers our MIX-UP service, which allows us to create a tailor-made formulation for detergency companies.



#### Logistics

We deliver your chemical products with the maximum quality guarantee, when you need them and adapting to the agreed delivery conditions.

## The concept of enzymes

Enzymes are ingredients widely spread in industry and they are sustainable alternatives to some chemicals in many markets. <u>But</u> which is their role in detergents?

Enzymes are biocatalysts that accelerate biochemical reactions in living organisms.

They are commonly found in nature, but they can also be produced in an industrial scale from fermentation of microorganisms. They are renewable and obtained from natural resources.

In detergency, enzymes help degrade soils into smaller pieces so that surfactants can more easily remove stains.

For very stubborn stains, the combination of surfactants and very low dosages of enzymes leads to optimum washing results.

- → Better soil release and stain removal
- → Lower washing temperatures and energy consumption
- → Less environmental impact



### Enzymes in detergent products

Enzymes are very specific to the substrate or soil they target and thus, several enzymes are used in detergents to cover a wide range of stains:

Enzyme	Target Substrate	Typical Stains	
PROTEASE	Proteins	— Egg — Blood — Milk — Cocoa — Grass	
AMYLASE	Starch and carbohydrates	<ul><li>— Pasta</li><li>— Gravy sauces</li><li>— Potato starch</li><li>— Chocolate</li></ul>	
LIPASE	Lipids and fats	<ul><li>— Butter</li><li>— Sunflower and olive oils</li></ul>	
CELLULASE	Cellulose and hemi-cellulose	Textile fibres (anti-pilling effect)     Cereals and porridges	
MANNANASE	Texture ingredients (guar gum and others)	— Ice creams — Dressings — Cosmetic and make-up products	
PECTINASE	Pectin	— Jellies — Jams — Fruit juices	

#### **BD Bioenzym Det**



**Non-GMO:** produced from fermentation of non-genetically modified organisms.



<u>Without  $TiO_2$ :</u> capsules do not contain Titanium Dioxide suspected to be genotoxic.



<u>Co-granular technology:</u> solid blends are made of co-granules that grant an optimum and equal distribution of enzymes throughout the entire final formulation.



<u>Taylor-made solutions:</u> development of customised blends to provide specific enzyme mixtures.



<u>Technical Support:</u> we support you on formula development and optimisation by conducting performance and stability tests for you.

## Our range of products

	PRODUCTS	ENZYMES	APPEARANCE
INDIVIDUAL ENZYMES	BD BIOENZYM DET PRO-G	Protease	Granular
	BD BIOENZYM DET PRO-L (*)	Protease	Liquid
	BD BIOENZYM DET AMY-G	Amylase	Granular
	BD BIOENZYM DET AMY-L (*)	Amylase	Liquid
	BD BIOENZYM DET LIP-G	Lipase	Granular
	BD BIOENZYM DET LIP-L	Lipase	Liquid
	BD BIOENZYM DET CEL-G	Cellulase	Granular
	BD BIOENZYM DET CEL-L	Cellulase	Liquid
	BD BIOENZYM DET MAN-L	Mannanase	Liquid
	BD BIOENZYM PEC-L	Pectinase	Liquid
ENZYMATIC BLENDS	BD BIOENZYM DET PA-G	Protease + Amylase	Co-granular
	BD BIOENZYM DET PAL-G	Protease + Amylase + Lipase	Co-granular
	BD BIOENZYM DET PALC-G	Protease + Amylase + Lipase + Cellulase	Co-granular
	BD BIOENZYM DET PACM-G	Protease + Amylase + Cellulase + Mannanase	Co-granular
	BD BIOENZYM DET PALCM-G	Protease + Amylase + Lipase + Cellulase + Mannanase	Co-granular
	BD BIOENZYM DET PA-L (*)	Protease + Amylase	Liquid
	BD BIOENZYM DET PAL-L (*)	Protease + Amylase + Lipase	Liquid
	BD BIOENZYM DET PALMP-L	Protease + Amylase + Lipase + Mannanase + Pectinase	Liquid
	BD BIOENZYM DET PALCMP-L (*)	Protease + Amylase + Lipase + Cellulase + Mannanase + Pectinase	Liquid

<sup>(\*)</sup> Concentrated version available.

#### Can't find the product you're looking for?

We love challenges and exploring new horizons. Tell us what product you need and we will find it for you.







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