

QUALITY PROTECTS.



Velcorin® technology is a cold sterilization agent that provides protection against microorganisms that could spoil the drink and also maintains the natural flavour.

X Velcorin®

QUALITY WORKS.

LANXESS
Energizing Chemistry

YOUR CHALLENGES OUR TECHNOLOGY MADE IN GERMANY

As a manufacturer in the beverage industry, you are faced with increasingly tough challenges. On the one hand, new types of drinks (e.g., with added health benefits) always have to be developed, while still maintaining high production standards and ensuring that drinks are protected from spoiling.

Microorganisms that can spoil drinks, such as yeasts, moulds and bacteria do not just affect the quality and particularly the organoleptic characteristics of the drink, but can in certain circumstances endanger the health of consumers.

Microorganisms are everywhere when bottling beverages – in the ambient air, production plants, caps and the drinks themselves. As the manufacturer, you can choose between a variety of different methods to stabilise your drinks, whereby cold sterilisation with Velcorin® has prevailed and successfully established itself as one of the top technologies.

CONVINCING PROTECTION REAL FLAVOUR

Velcorin® (dimethyldicarbonate/DMDC) is already highly effective at a low dosage against typical microorganisms that can spoil drinks and safeguards the quality of the beverages without impact on the taste and the color.

Your benefits from Velcorin®:

- Highly effective against microorganisms
- Neutral flavour
- Cost-effective
- Compatible with all types of packaging
- Application-specific advice and services

BROAD RANGE OF APPLICATIONS

- Carbonated & still juice drinks
- Isotonic sports beverages
- Iced teas
- Flavoured water
- Wine, Cider, Fruit wine
- Beer based drinks, Radler



UNCOMPROMISING AGAINST MICROORGANISMS

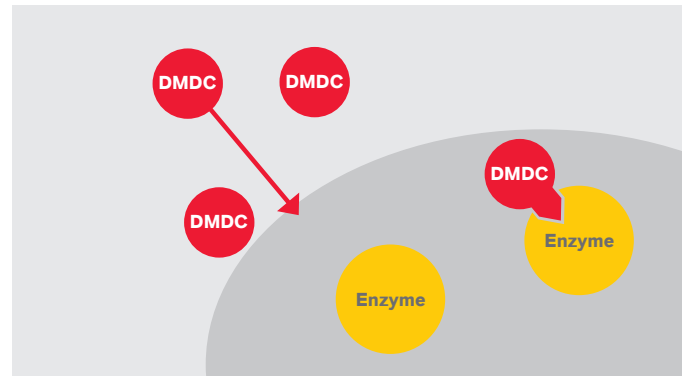
Velcorin® is added during the production of the beverage. Even at low concentrations, Velcorin® is very effective against typical microorganisms such as yeast, bacteria and moulds.

How does Velcorin® work?

Velcorin® penetrates the cell and deactivates enzymes, leading to the destruction of the microorganisms.

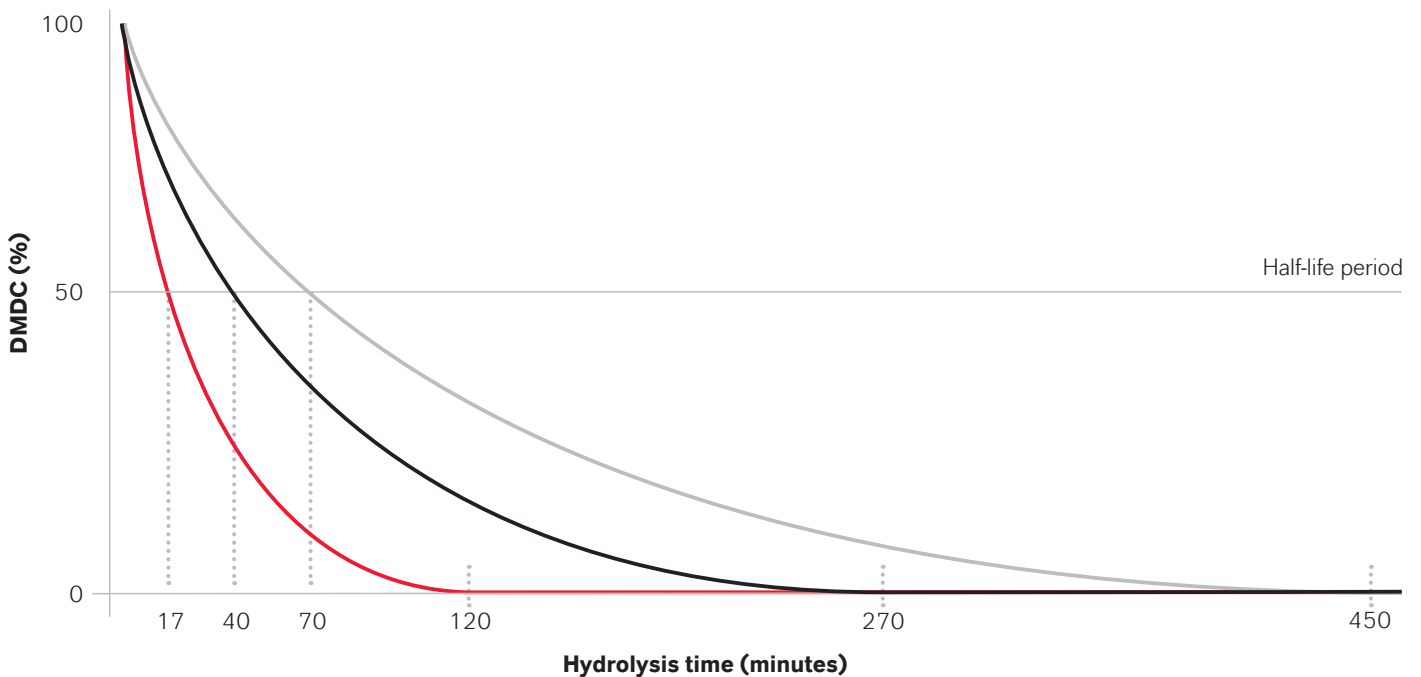
Once added to the beverage, Velcorin® rapidly breaks down into negligible amounts of methanol and carbon dioxide, naturally occurring compounds in many beverages such as fruit and vegetable juices and wines. Consequently, it has no effect on the taste, smell or colour of the beverage.

A simplified illustration of how DMDC works



What is Velcorin®?	
Composition	Dimethyldicarbonate (DMDC)
DMDC	at least 99.8%

Breakdown (hydrolysis) of Velcorin® in beverages

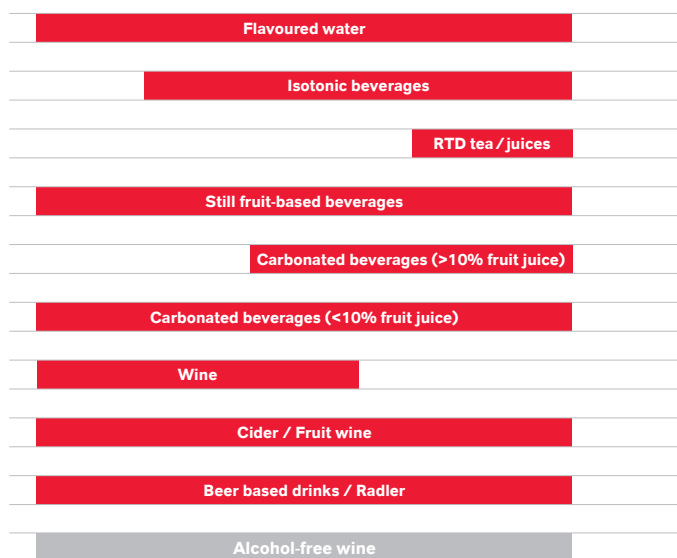


■ 20°C ■ 10°C ■ 4°C

VELCORIN® – HAS A WORTHWHILE EFFECT

It is clear, that consumers are always on the look out for new and authentic flavours. It is easy to see why you can fully rely on Velcorin® during the filling process, if you place particular importance on the product quality and authentic taste of your soft drinks.

Standard dosing



10 12 14 16 18 20 ml/100 l
125 150 175 200 225 250 mg/l

Exposure data on microorganisms

Minimum lethal concentrations of Velcorin®; populations of up to 500 cfu/ml

Velcorin® mg/l	
Yeasts	
<i>Candida krusei</i>	100-200
<i>Hansenula pichia</i>	25-50
<i>Kloeckera apiculata</i>	25-50
<i>Rhodotorula rubra</i>	50-200
<i>Saccharomyces cerevisiae</i>	25-100
<i>Saccharomyces diastaticus</i>	50-200
<i>Saccharomyces globosus</i>	25-50
<i>Zygosaccharomyces bailii</i>	50-150
Moulds	
<i>Aureobasidium pullulans</i>	150-250
<i>Byssoschlamys fulva</i>	100-150
<i>Penicillium glaucum</i>	150-200
Bacteria	
<i>Acetobacter pasteurianus</i>	50-100
<i>Lactobacillus brevis</i>	150-200

USED AROUND THE WORLD

The use of Velcorin® is approved for a wide range of different beverages around the world. Beverage manufacturers are responsible for ensuring that they meet all local legal requirements, including compliance for import/export activities. Prominent bodies, such as the EU Scientific Committee on Food, the FDA in the United States and the JECFA of the WHO, have all confirmed that dimethyldicarbonate is safe for use in the beverage industry. The production of Velcorin® is certified according to ISO 9001:2015, ISO 14001:2015, ISO 22000:2005 and FSSC 22000 V4.1. Velcorin® is also certified to meet Halal & Kosher requirements.



VELCORIN® DT TOUCH – DOSING TECHNOLOGY

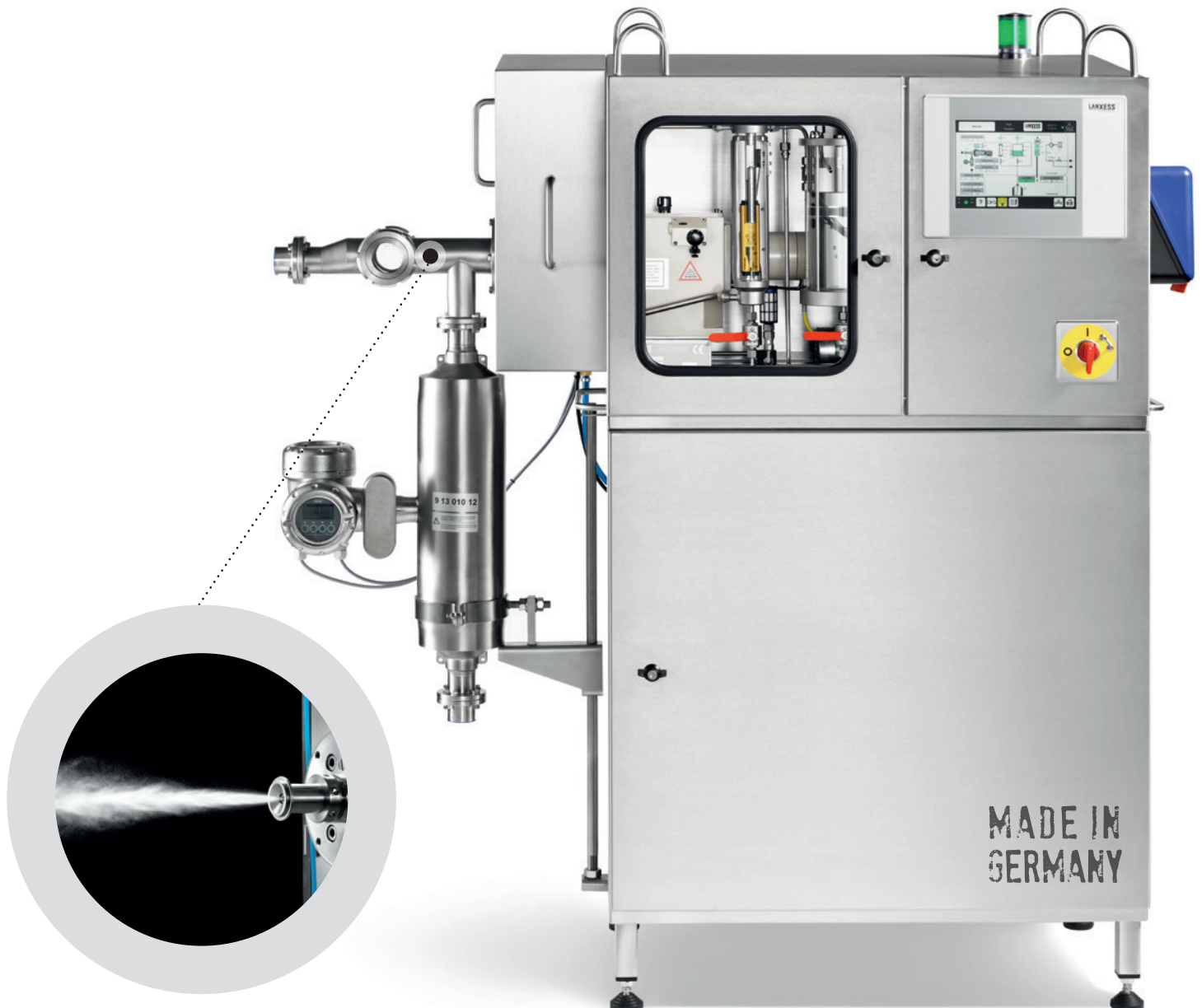
With Velcorin® we not only offer you a highly effective solution for the cold sterilisation of your beverage, but also provide a complete range of services with our state-of-the-art Velcorin® dosing units.

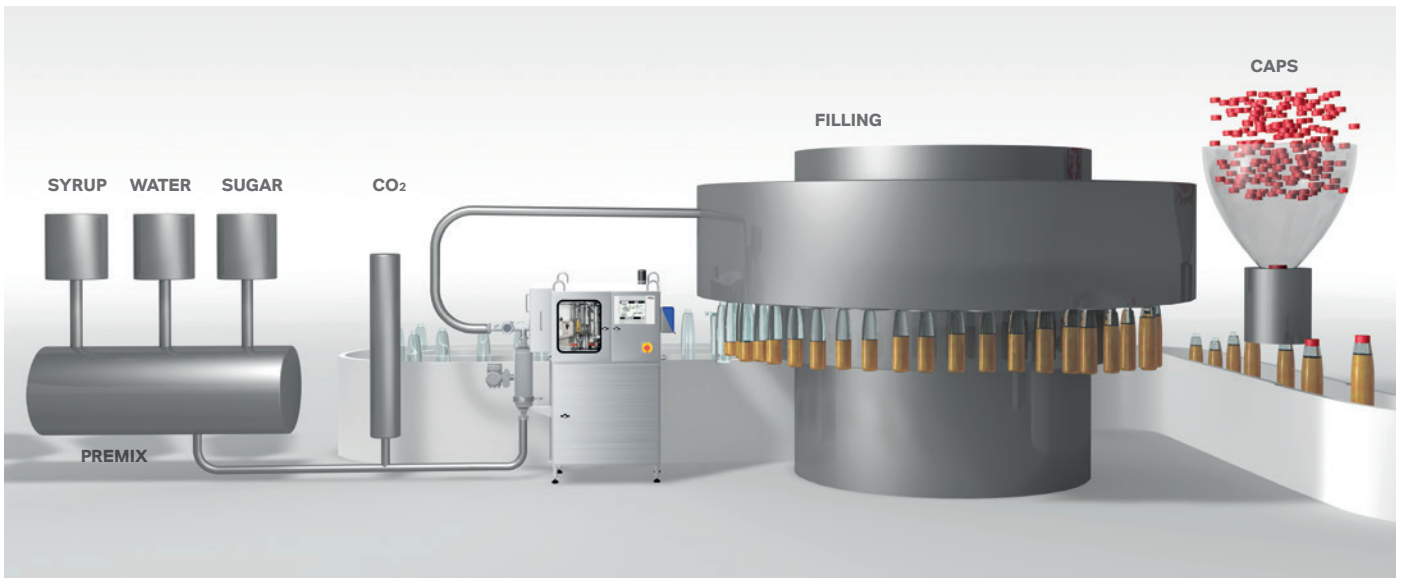
Features of Velcorin® DT Touch:

- High-quality and robust metering pump with monitorable dosing
- Temperature-controlled, stainless steel upper and lower cabinets containing 6 kg or 25 kg bottles
- Control and visualisation via touch panel PC
- Excellent dispersion of Velcorin®
- Beverage flow rate measured by the mass measuring device
- Ventilation on the Velcorin® side
- Easy and safe operation

Control and visualisation of dosing process

- Included in the electronic control system of the filling line
- Automatic display of messages, warnings and maintenance intervals
- System visualisation in a dynamic flow chart
- Clear overview of the target and actual values
- Data storage
- Data transfer via USB
- Various operator levels/access rights





The Velcorin® dosing pump is installed in new or existing filling lines. Only minor modifications to the filling line are required for this purpose.

Sizes

Model range	Min. beverage flow rate l/h	Max. beverage flow rate l/h	Max. Metering rate* ml/hl	Connections in DN
DT 3 Touch	600	3,600	20	40
DT 6 Touch	1,200	7,200	20	40
DT 13 Touch	2,400	14,400	20	50
DT 18 Touch	3,600	21,600	20	50
DT 30 Touch	6,000	36,000	20	50
DT 50 Touch	8,400	50,400	20	80
DT 75 Touch	13,200	79,200	20	80

*Maximum permissible dosing rate depends on the product and country registration.



ALWAYS ON HAND

Comprehensive services and benefits for our customers

Technical Services

On-site support by our technical experts

- Technical evaluation and consultancy
- Line assessment and gap analysis
- Support of lab and industrial trials
- Training of product handling Velcorin®

Lab Services

Full equipped beverage laboratory with various analytical capabilities

Microbiology and molecular biology laboratory

- Isolation and identification of beverage spoiling microorganisms
- Efficacy tests
- Optimization of preservative usage
- Support of hygienic monitoring

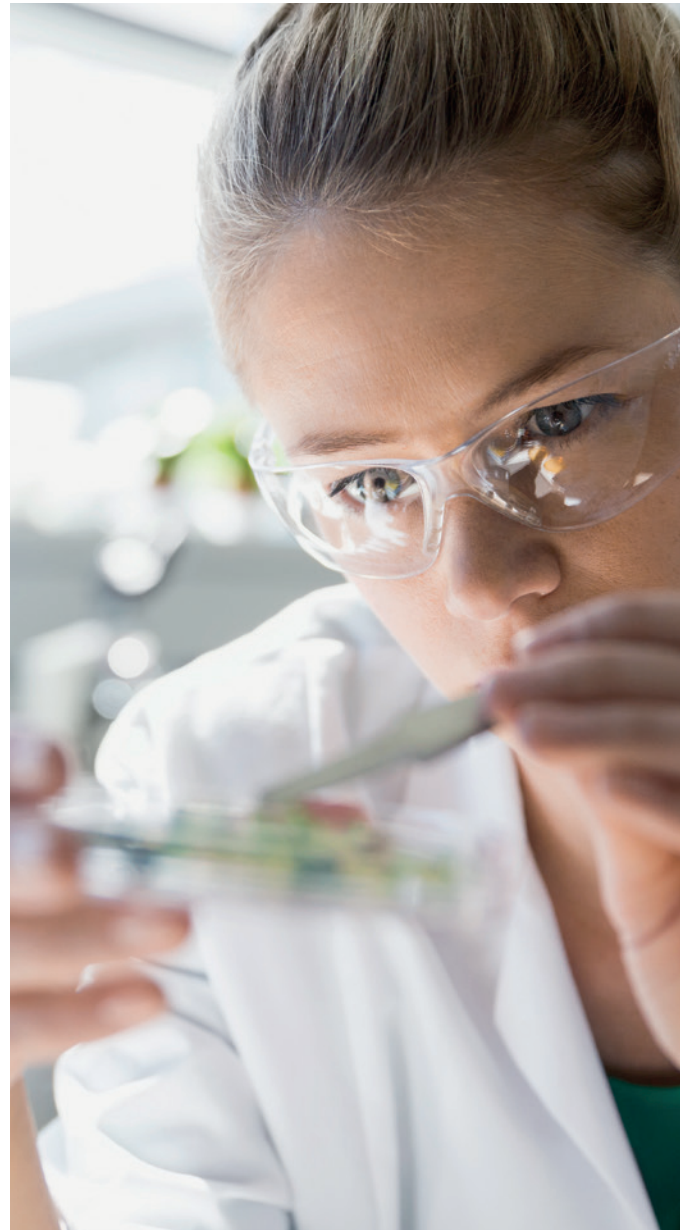
Analytical laboratory

- Determination of Velcorin® dosage as well as other common preservatives
- Testing of key beverage quality parameters
- Existing strong network with external laboratories for further microbiological and analytical testing

Dosing Technology

Certified state of the art equipment – Made in Germany

- Commissioning
- Training
- Service hubs all over the world
- Full service package including preventive maintenance
- 24/7 service hotline
- Loan units on request



What can we do for you?

We look forward to each new challenge – and our next conversation with you!

www.velcorin.com



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The application, use and handling of our products and the products produced by your company on the basis of our application-specific advice are beyond our control and are therefore entirely your own responsibility. Our products are sold in compliance with the appropriate current version of our General sales and delivery terms. According to EU regulations, Velcorin® is a hazardous substance. For details please see the material safety data sheet of Velcorin® on www.velcorin.com.

All of the brands are protected brands of the LANXESS Group, unless specified otherwise.
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