



MTM Solutions is processing 48 gsm -141 gsm thermal paper.

The width as well as the length of thermal rolls can be converted according to specific customer requirements. Also, during the preparation, we offer possibility of printing your company logo in full colour on the back side of all types of rolls, marked end and vacuum packaging. This is an effective way of marketing. For demanded printing UV colours are used. We use paper of high quality produced in Germany.



Thermal paper rolls have wide range application:

Thermal rolls for cash registers



Rolls for ATM



Rolls for POS terminal



Tachograph



Rolls for Parking services and taxi



Fax rolls



Lottery tickets and gambling



Thermal cardboard



Medical papers





MTM Solutions is manufacturing and printing self-adhesive labels by flexo printing machines. Labels could be produced on rolls or in sheets.

We offer commercial labels and declarations printing for consumer goods with full UV colours. As we know how important design of the final product is for final customer therefore, we dedicate great attention to high quality printing.

Also, we produce labels for Direct-Thermal and Thermal-Transfer printing. On already printed labels we print only fixed information (company logo, address, phone numbers), and variable information is printed afterwards by all types of DT or TT printers in customer factory or sales shop (nett weight, barcode, shelf life, date of production etc.)

Dimensions of labels, shape as well as dimensions of roll core can be customised according to customer demands. We use adhesive materials from high quality European producers such as: Thermal ECO, Thermal TOP, Coated, PE etc. Our labels have application in food, meet, cosmetics, chemical and pharmaceutical industry.

PERFORATION
MARK ON BACKSIDE
BOTH SIDE PRINTING
NUMERATION



Commercial labels



Waterproof labels



Labels for supermarkets



Transportation labels



Barcode



Declarations



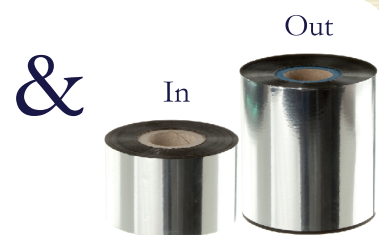
Labels for thermal printing
(Direct-Thermal)



Labels for thermal printing
(Thermal-Transfer)



Thermal-transfer Ribbon
(WAX, WAX/RESIN, RESIN)





MTM Solutions has got its own thermoforming production of plastic packaging for food industry. We own wide range of tools with different shapes of volume from 250cc up to 2000cc, but we can also adapt to customer demanded design. Containers can be made from different type of materials according to customer demands such as: **PET, PP, OPS, PS and PVC**.

PET containers have temperature resistance from -40 up to $+60^{\circ}\text{C}$ what makes them applicable for packaging wide range of products such as frozen fruit or fresh food. Transparency, strength as well as great barrier properties for extending shelf life of food, make this material most favourable choice.

OPS containers possess crystal purity, shiny surface, high transparency and strength. Because of these characteristics OPS makes best visual effect and therefore is mostly used for packaging cakes. OPS has temperature resistance from -40 up to $+80^{\circ}\text{C}$

PP trays have high temperature resistance up to $+110^{\circ}\text{C}$ what makes them ideal choice for packaging hot cooked meals.

PS containers have highest application in confectionery industry for packaging cookies, biscuits, sweets etc.

PVC is mostly used in pharmaceutical industry for packaging pills.



Hinged lid containers



Higher hinged lid containers for desert and cookies



Salad container with separate lid



Fresh fruit containers with wholes



Microwaveable containers



Cake containers



Sealable and MAP food containers



Chocolate and biscuit separators



Blister packaging





Would you like to extend shelf life of your products?



Containers with barrier property



Labels



Gas Machine for thermal sealing and gas injection



Absorbent pad



Film for sealing with barrier property, anti-fog, peel

In order to increase shelf life and maintain its taste, smell, colour and nutritional value as well as overall look of products without additives, in compliance with ISO & HACCP standards, it is best to use packaging in modified atmosphere (MAP).

Modified atmosphere is combination of gasses that can be found natural air: Oxygen (O₂), Carbon dioxide (CO₂) and Nitrogen (N₂).

Let us know which type of product you are packaging and we will recommend most suitable mixture of gasses.

Our packaging possesses high barrier property which insures that there is no possibility of gas leaking.

Use of MAP for food packaging	Without MAP	With MAP
Raw red meat	2 - 4 days	5 - 8 days
Raw poultry and game birds	4 - 7 days	10 - 21 days
Raw fish and seafood	2 - 3 days	4 - 6 days
Fresh pasta	1 - 2 weeks	3 - 4 weeks
Fresh fruit and vegetables	2 - 7 days	5 - 35 days
Bakery products	4 - 14 days	4 - 12 weeks
Dairy products	1 - 4 weeks	2 - 12 weeks
Cooked and ready meals	1 - 3 weeks	3 - 7 weeks
Cooked poultry and game birds	5 - 10 days	7 - 21 days
Cooked fish and seafood	5 - 10 days	7 - 21 days
Cooked vegetables	3 - 14 days	7 - 21 days
Dry food products	4 - 8 months	1 - 2 years



MTM Solutions is the company with long tradition in production of cheese rennet since 1987 and thanks to long tradition is the leader on the market.

SIRELA is liquid cheese microbial rennet based on Chymosin derived through controlled fermentation of *Rhizomucor miehei*.

Dosage is customised for usage in households as well as in dairy industry for making different types of cheese. Technical support of our team is always available to you.

Quality control of rennet is done on regular basis in our well-equipped laboratories that guarantee standardised quality of our products. We are known on the market for high quality and competitive prices.

Packaging: 1000g
500g
250g

Strength:

- 1:3000 - In 10l of milk heated on 35°C add 3 spoons of Sirela
- 1:5000 - In 10l of milk heated on 35°C add 2 spoons of Sirela
- 1:10000 - In 10l of milk heated on 35°C add 1 spoon of Sirela



Yoghurt cultures

Kefir cultures

Protective cultures

Probiotic cultures

Sour milk cultures

Sour cream cultures

CHEESE CULTURES:

White cheese / feta cheese

Mozzarella cheese

Kashkaval cheese

Fresh cheese

Soft cheese

Semi hard, hard cheese

Cottage cheese

Cheddar cheese



Company **MTM Solutions** offers starter cultures for dairy industry application along with continuous technical support and assistance of our expert team.

Sirela Starter cultures are manufactured with selected strains to offer cheese and yogurt producers, controlled acidification, various flavours and texture options to obtain the best products.



MTM Solutions Antibiotic tests are receptor-based assay in dipstick format for detection of one or simultaneous detection of more antibiotic groups present in milk samples. EU maximum residue limits (MRLs) or Russian Federation (RF) milk limits.

Benefits:

- ✖² Detection of several antibiotic groups in one test.
- ⌚ Rapid: Just 5 minutes for the results.
- 🔍 Sensitive.
- 🔒 Precise and reliable results approved by international organisations
- 👤 User friendly.
- 💶 Competitive price.
- ✅ For any kind of milk.

Tests:

Mono tests:

1. Beta lactams test
2. Tetracyclines test
3. Sulfonamides test

Multiple tests:

4. Beta - lactam, Tetracyclines
5. Beta - lactam, Tetracyclines and sulfonamides

Aminoglycosides:

6. Streptomycin & Dihydrostreptomycin
7. Gentamycin
8. Neomycin

Toxins:

9. Aflatoxin M1

Adulteration:

10. Melamine



Kit components:

- ✅ 96 tests (12 bottles with 8 well strips & 8 test strips in each)
- ✅ 96 plastic pipettes
- ✅ Microwell holder
- ✅ Kit insert

Instructions for use:

<p>1. Prepare the test samples. Make proper marks, bring them to room temperature.</p>	<p>2. Take out required test wells. make proper marks.</p>	<p>3. Take 200ul test sample into the wells.</p>
<p>4. Mix the sample and reagent in the well completely by pipetting and dropping repeatedly for 5 times. Start the timer when the mixture is pink. Incubate for 5min at room temperature.</p>	<p>5. Insert the test strips into the wells with the "MAX" end fully dipped in to the mixture. Incubate for 5min at room temperature again.</p>	<p>6. Take out the strip; judge the result.</p>



MICROBIAL RENNET

Biolasa is a food grade enzyme derived through the controlled fermentation of special strains of *Rhizomucor miehei*. It contains the specific protease activity that makes it effective as a milk clotting enzyme.

- Economic alternative to cloned or calf rennet in cheese making process
- Process conditions, clotting time, etc. are like those cloned and calf

MTM Solution offers thermostable and thermo labile versions of microbial rennet at different activities in liquid and granular forms. Biolasa is high concentrated rennet intended for use in dairy industry.

Packaging:
Liquid: 20 kg
Powder/Granular: 500 g

Standard Products	Standard activity	Standard activity
Liquid	1500 IMCU	1:125000 MCU

* Usage: 15 ml in 1000 l milk.

Granular	2250 IMCU	1:187500 MCU
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CALF RENNET

Calf rennet is produced through continuous extraction and membrane column filtration process from bobby calf stomachs. Active enzymes are chymosin and bovine pepsin. It is free from microbial coagulant, swine pepsin and DNA recombinant chymosin. For this reason, it is ideal for traditional cheese production.

- Calf rennet contains natural chymosin and pepsin giving a strong structure and good flavour to cheese.
- Calf rennet has best effect on long ripened cheeses.

Packaging:
Liquid:
Powder/Granular:

Standard Products	Standard activity	Standard activity	Percentage Chymosin-a
Liquid	228 IMCU	1:19000 MCU	75% Chymosin - 25 % Pepsin
Mild Paste	120 IMCU	1:10000 MCU	80% Chymosin - 20 % Pepsin
Granule	1500 IMCU	1:125000 MCU	95% Chymosin - 5 % Pepsin
Spicy Paste	180 IMCU	1:15000 MCU	75% Chymosin - 25 % Pepsin

100% CHYMOSIN

Fermented rennet is pure chymosin enzyme produced from special strains through controlled fermentation. It is available in several activities and in liquid and powder forms.

Packaging:
Liquid: 5 l, 20 l, 30 l, 1000 l
Powder/Granular: 500 g

Standard Products	Standard activity	Standard activity
Liquid extra	600 IMCU	1:50000 MCU
Granular	2100 IMCU	1:175000 MCU





90 seconds
6 parameters



30 seconds
8 parameters



Milkana SUPERIOR plus

MEASURING PARAMETERS:

Fatness
Solids Non Fat (SNF)
Added Water
Freezing point
Protein
Milk Density

FEATURES:

- Measures cow and sheep milk
- Stainless steel body for longer life
- No acid or other chemicals are used
- Easy to use and clean
- 12V power cable for car use
- Portable, simple and lightweight design
- Available in both manual and automatic measurement choices
- Automated cleaning, CIP Cleaning system
- PC or printer connection (RS 232)
- Data collection System, (120 analyse records and 999 supplier information)
- Technical service and warranty to provide spare parts
- One year warranty

Milkana ESPRESS plus

MEASURING PARAMETERS

Fatness
Solids Non Fat (SNF)
Added water
Protein
Freezing point
Protein
Milk density
Lactose
Conductivity



**45 seconds
11 parameters**



Milkana MULTI - TEST AIR MEASURING PARAMETERS

Fatness
Solids Non Fat (SNF)
Added water
Protein
Freezing point
Protein
Milk density
Lactose
Conductivity
pH
Temperature
°SH



Milkana SOMATIC SCAN SOMATIC CELLS MILK ANALYSER

Somatic cell analyser MILKANA SOMATIC SCAN provides fast and cost effective quality control of milk from farm to laboratory. Analysis of somatic cell count is based on measuring the viscosity of milk. An anionic surfactant (Milkoprim) is added to milk which solubilises the somatic cells plasma membrane and its nucleus envelope, forming gel, therefore elevating the viscosity of the milk.

- Measuring range in line with regulations; measures 90.000-1.500.000 cells/ml (EU Limits: < 400.000 cells/ml)
- Results in average 1 minute
- Practical and simple design
- Proven method
- Cost effective
 - Low power consumption
 - Test with a very small amount of milk (10 ml)
- Data collection mode, stores up to 250 records (supplier name, time and somatic cells number)
- 1 year full warranty



Natamycin



Natamycin (Pimaricin) is a kind of antifungal food preservative produced by *Streptomyces natalensis*. It inhibits the growth of moulds and yeasts. Commercial Natamycin products contain 50% natamycin. It will be able to avoid food spoilage caused by various moulds and yeasts with a small dosage of natamycin. But it does not affect the growth of bacteria. In general 1-10mg/kg can kill various yeasts and moulds in food.

It has been widely used in food industry such as cheese, juice, wine and meat processing.

Benefits:

- ✓ It is effective against a board list of mould, fungi, and yeast strains. It prevents all food deterioration caused by mould, fungi and yeast.
- ✓ Prevents formation of toxic mycotoxins
- ✓ Improves shelf life of food products
- ✓ Has no effect on desirable culture activity in fermented products
- ✓ Does not affect the appearance, flavour, aroma, or colour of food products
- ✓ Pure natamycin is also available as well as blended with glucose and salt

Nisin



Nisin is a natural, toxicologically safe, antibacterial food preservative. It is regarded as natural because it is a polypeptide produced by certain strains of the food-grade lactic acid bacterium *Lactococcus lactis* subsp. *Lactis* during fermentation. Nisin exhibits antimicrobial activity towards a wide range of Gram positive bacteria, and is particularly effective against spore-forming bacteria.

Benefits:

- ✓ Nisin prevents food deterioration caused by bacterium and bacterial spores
- ✓ Prevents bacterial deterioration caused by heat resistant organisms when the products are stored at high temperatures.
- ✓ Controls bacterial spores which are heat resistant and can cause the deterioration at high temperatures. It can also allow a reduction of processing temperatures
- ✓ Improves shelf life of products.

Lactase



Lactase hydrolyses the lactose in monosaccharides: glucose and galactose. Dairy products containing lactose cause lactose intolerance for some people. To avoid lactose intolerance, lactase can be used. Lactose can be eliminated by treating milk and other milk-based products with Lactase, which degrades lactose into glucose, galactose and some galactooligosaccharides.

Activity 5000 NLU/g
2000 NLU/g

Benefits:

- ✓ Better enzyme performance will enable offering superior milk products to your consumer
- ✓ Premium purity
- ✓ Reduction of off-flavours
- ✓ Increased process flexibility (broader product range)
- ✓ Increased production capacity
- ✓ Improved filterability
- ✓ Sweeter milk-based products
- ✓ Less sandiness in ice cream

Calcium Chloride (CaCl₂)



Powder: 96-99% Packaging: 25kg
Liquid: 36-37% Packaging: 1360kg, 25kg, 1kg

It has wide range of applications in food industry:

- cheese production for speeding up the process of milk protein coagulation
- pH adjustment in brewing industry
- fruits and vegetables pre- and postharvest treatment
- fruits and vegetables preservation (canning, pickling)
- water treatment for soft drinks production
- meat and ice-cream freezing point decreasing
- jelly products (ice topping, fruit preparation, jams, confitures etc)

Cheese cloth



We offer cheese cloth of different dimensions and density for use in households as well as in dairy industry.

Cheese making set



Cheese making set has 50ml of Sirela Extra and cheese cloth for multiple use. For each litre of prepared milk heated up to 38°C add 10 drops of Sirela Extra.