# **Thermal Transfer Ribbons**

### The Right Ribbon for Every Purpose







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### The Experts in Thermal Transfer Ribbons

#### CALOR | RTT

We are a manufacturer, coater and converter of thermal transfer ribbons.

For decades, we have been collaborating with the leading coaters worldwide – but we also coat our own ribbons at our Normandy plant. Therefore you are sure to find the right quality in our very large product range.

As a manufacturer, we sell to the trade only: to resellers, label manufacturers, system providers, and OEMs. In Europe and worldwide.

Standard products are delivered immediately from stock. Due to our large machine park, we can offer you the shortest lead times also for made-to-measure products. The boxes can be labelled according to your specifications and shipped directly to your customers.

Our products fulfil all requirements as to ingredients and those laid down in the Chemicals Directive REACh. Many of them are approved for the contact with foodstuffs. Our complete process has the ISO 9001:2008 certificate.

As in the past, we want to dedicate ourselves with all our attention, with pleasure and energy to the task of offering you first-class products at advantageous prices with an excellent service also in the future.

We are looking forward to your enquiry!

#### Your Benefits:

Tried and tested quality products "Made in Germany" and "Made in France".

Support by our professional sales team.

Experienced technicians and engineers advise you on application-specific questions.

Two printing laboratories are at your disposal.





### Your Requirement

You are looking for proven qualities in

standard dimensions and would like

to receive the goods quickly and on

easy terms.

Our Offer

#### **The Standard Range**

- Basic range of essential products
- Easy to sell
- Short lead times
- Attractive prices

() The 8 most best-selling qualities can be found on pages 6/7.

You would like to choose your product from a large range of qualities

#### **The Flexible Roll Production**

- Comprehensive product range with solutions also for difficult materials
- Ribbons made to order
- Branded consumables for increased market presence

(O) All qualities are briefly introduced on pages 10/11.

**Know-how in Development and Coating** 

- Tailor-made gualities and roll designs
- Special colours
- For special applications other than label printing

You will find examples of developments on pages 12/13.

You need ribbon qualities for highly specific applications and rolls in an unusual design, on particular cores or in cassettes.

and have your ribbon manufactured according to your own specifications.

### The 3 Product Lines

#### Product Line "compact"

A clean-cut range of few selected qualities in the most common dimensions for the most frequently used printers covers the majority of applications. The result: lowest prices and shortest lead times.

 $\bigcirc$ 

Many of our colours are available as standard articles, even in small quantities. The colour range can be found on page 14.

#### Product Line "made to measure"

You determine the width, length, ribbon quality, core material, and diameter. We slit, wind, pack and label your ribbons. Exactly to the measure of your customers' application and printers.

(O) We store more than 80 colours in jumbo rolls for you – see page 14.

#### Product Line "special"

We develop ribbon qualities with particular properties according to your specifications. In our **special** range, you will already find products developed in the past for card printing, franking, and outdoor applications.



You will find colours for card printing, signage and outdoor applications on page 15.











### Product Line "compact"

#### **The Standard Range**

Limitation to the essential and standardisation are the core elements of our **compact** range. These principles enable us to produce in an economical way and to offer you low prices and shortest lead times.

In the following we introduce the 8 qualities with the best price-performance ratio to you. Five more qualities are available in the **compact** range. We supply ribbons in 19 roll types for the most popular printers in the market in frequently sold widths.

Our proven and tested packaging can be labelled according to customer specifications.

#### Your Benefits:

A clean-cut product range 8 Qualities for 90 % of all applications.

**Short lead times** Many dimensions are on stock.

Attractive prices Thanks to efficient production and standardised articles.



### **Qualities for Near-Edge Printers**

	<b>Wax/Resin</b> – High resolution at highest printing speed		<b>Resin</b> – Very good resistance, universal use on many materials
Quality	direct	perfect	resistNE
Character	High-contrast universal quality All-round NE quality		Resistant resin quality for many materials
Label stock	All label materials All label materials, even difficult surfaces		All synthetic films, type plates, smooth, coated papers and cardboards
Application	Direct print on packaging film, high-quality product labels	High-quality product labels, direct print	Long-lasting and highly resistant product identification
Ribbon thickness	7.1 μm 7.0 μm		7.5 μm
Optical density on vellum / PE	1.5/1.9 1.45/1.9		-/1.85
Max. printing speed	600 mm/s 300 mm/s		200 mm/s
Approvals	ISEGA-certified for food contact; Euro heavy-metal-free according to RoHS; halogen-free	ISEGA-certified for food contact; European Packaging Directive 2004/12/EC; heavy-metal-free according to RoHS; no substances of REACh's SVHC list; not halogen-free	

### **Qualities for Flat-Head Printers**

	Wax – High sensitivity and black	ness, low resistance, low price	
Quality	ratio	brilliant	brilliant+
Character	Standard wax quality very low price	Premium wax quality – high contrast and sensitivity	Wax plus quality with highest resolu- tion and good resistance
Label stock	Coated papers, vellum, cardboard materials	Vellum, coated papers and card- board materials	All paper and cardboard materials, also preprinted, PE film
Application	Logistics product identification Product identification		Product identification with high demands on resistance
Ribbon thickness	7.1 μm 8.6 μm 8		8.0 μm
Optical density on vellum / PE	1.7 1.85		1.8
Max. printing speed	250 mm/s 300 mm/s		300 mm/s
Approvals	ISEGA-certified for food contact; Europ heavy-metal-free according to RoHS; r halogen-free	ISEGA-certified for food contact; heavy-metal-free according to RoHS; no substances of REACh's SVHC list; halogen-free	

	<b>Wax/Resin</b> – Increased resistance, high resolution, univer- sally usable	<b>Resin</b> – Very good resistance, high durability, for smooth materials	
Quality	mix	resist	
Character	Universal quality for a large range of materials	Highly resistant resin quality with excellent all-round properties	
Label stock	Vellum, coated and synthetic papers, all kinds of synthetic film, Tyvek etc.	All synthetic films, type plates, smooth, coated papers	
Application	High-quality product identification	Long-lasting and highly resistant product identification	
Ribbon thickness	7.5 μm	7.5 μm	
Optical density on vellum / PE	1.7 / 2.0	-/1.85	
Max. printing speed	300 mm/s	200 mm/s	
Approvals	ISEGA-certified for food contact; heavy-metal-free according to RoHS; no substances of REACh's SVHC list; halogen-free	ISEGA-certified for food contact; Eu- ropean Packaging Directive 2004/12/ EC; heavy-metal-free according to RoHS; no substances of REACh's SVHC list; halogen-free, UL certificate	

More **compact** qualities: ecoNE, prima, vario+, ideal, resist+

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## The compact Standard Articles

Here you will find the **compact** standard articles, sorted by length and coated side (inside first). Within a type, each row indicates a standard width and the corresponding packaging unit, and there is a list of the most common printers. Special widths of a type are available at an extra charge for 1" core rolls and quantities over 50 rolls.

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#### 30 Standard Dimensions for Near-Edge Printers

300 m 600 m 900 m Coated side outside 3VA Coated side inside SMK Coated side inside SM9 Width Width Rolls/ Rolls/ Width Rolls/ (*mm*) box (*mm*) box (mm) box 50 30 35 25 55 12 90 20 55 20 110 20 For direct-printing system: Smart Date II, III, IV, V; For: Smart Date III; 135 10 For: Valentin Optimo, plastic core; plastic core; 150 10 Spectra, DPM 1 empty core / box 1 empty core / box 300 m 600 m 1000 m Coated side outside T57 Coated side outside T87 Coated side inside AL1 Width Rolls/ Width Rolls/ Width Rolls/ (*mm*) box (mm) box (mm) box 114 10 55 20 55 12 160 70 10 10 110 6 80 10 220 10 For: TEC B 672, 682, 872, SX6; 85 10 For: Avery ALX 92x, core = 229 mm; centred; 90 10 DPM 4, 5, 6 1 empty core / box 102 10 450 m 1000 m Coated side inside K01 Coated side outside SOD 110 10 Width Rolls/ For: TEC SX4, SX5, B 372, Width Rolls/ 114 10 472, 572; (*mm*) box (*mm*) box 135 5 1 empty core / box 55 12 55 32 110 16 600 m Coated side inside NOV For direct-printing Width Rolls/ systems: Easyprint, (mm) box For: Videojet Dataflex, Smart Date II, III, IV, Zodiac; plastic core; 55 V; plastic core; 20 1 empty core / box 1 empty core / box 85 10 110 10 For: Avery 64-xx, TTX 450, 650, 950, 1050, 130 5

TDI, ALX 720, Novexx

Lion, Puma, Tiger

5

165

#### **70 Standard Dimensions for Flat-Head Printers**

#### Rolls on 1/2" core

74 m Coated side outside V24		74	74 m Coated side outside VO8		for <b>ratio</b>		
Width (mm)	Rolls/ box		Width (mm)	Rolls/ box		Width (mm)	Rolls/ box
57	12	. /	55	6	and a second	55	44
		Mo tany	65	6		65	44
			85	6	For: Zebra GC/GK/GX	85	44
		5 7 J TID 2024	110	6	420/430, TLP 2844, TSC TA-Serie, TTP-245, TTP-247	110	44
		For: Zebra TLP 2824, TSC TTP-225			core = 110 mm		

#### Rolls on 1" core

Dm o	Coated side inside K26
Rolls/ box	
36	
36	
24	
24	For:
24	Intermec E4, PFxx
	Rolls/   box   36   24   24

30	<b>0 m</b> (	Coated side outside T52
Width (mm)	Rolls/ box	
60	10	
85	10	Alterna Alterna Alterna
110	10	
		For: Tec B-452, B-SA4T;
		core = 118 mm;
		1 empty core / box

30	0 m 🛛	Coated side outside 3VA
Width (mm)	Rolls/ box	
40	30	
50	30	
60	30	
70	30	
80	20	
90	20	
100	20	
104	20	
110	20	
135	10	For different flat-head
150	10	printers:
170	10	Delna, Citizen, C-ITOH, Valentin, TEC B-442,
220	10	B-SV4T, Zebra

30	<b>0 m</b> (	Coated side outside T85
Width (mm)	Rolls/ box	
120	10	
160	10	
220	10	
		For: Tec B-852;
		core = 240 mm;
		1 empty core / box

30	0 m 🛛	Coated side inside 1DI
Width (mm)	Rolls/ box	
40	30	
50	30	C A A A A A A A A A A A A A A A A A A A
60	30	
76	30	
90	20	
110	20	For different flat-head
135	10	printers: Avery Ax, TTX, CAB,
165	10	Datamax, Novexx

Width

(*mm*)

102 110

114

152

165

20



-head ĊΑΒ, Datamax, Novexx

360 m Coated side inside FAR				
Nidth (mm)	Rolls/ box			
38	30			
50	30			
64	30			
76	30			
90	20			

20	
20	For different flat-head
10	printers: Avery Ax, TTX, CAB,
10	Datamax, Novexx

### 450 m Coated side inside UBI

Width (mm)	Rolls/ box			
38	24			
50	24			
60	24			
76	24			
85	16			
100	16			
110	16			
130	8	For different flat-head printers:		
150	8	Intermec EasyCod- er, PD4, PD41, PD42, PM4i, PX4i, PX6i, PA30,		
165	8			
220	8	Datamax, SATO CL		

450 m Coated side outside ZE2						
Width (mm)	Rolls/ box					
40	24					
50	24					
60	24					
70	24					
80	16					
90	16					
100	16					
104	16					
110	16					
140	8	For: Zebra ZT, Xi, S4M,				
154	8	S6M, Z4M, Z6M, ZM400,				
170	8	ZM600, Z4000, Z6000, 105 SL, TSC Mx, TTP-				
220	8	268M, ME-240				

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### Product Line "made to measure"

#### **The Flexible Roll Production**

From start to finish – we slit and wind, label and pack every thermal transfer ribbon according to your order. Widths vary from 12.7 mm to 1,000 mm, and lengths can go up to 1,400 m. The widths of jumbo rolls and finished ribbons determine the minimum quantity we can produce for you.

Here we would like to introduce only briefly the 45 available black ribbon qualities. For detailed information please request our data sheets or visit our website at **www.calor.de**.

We will be happy to advise you!

#### Your Benefits:

#### **Individual Solutions**

Even for difficult materials. Choose from 45 black qualities and a large number of colours (pages 14/15).

**Order-Related Manufacture to Measure** Roll dimensions and designs are adapted to your application.

**Branded Consumables for Increased Market Presence** We offer personalised roll leader, labels and packaging.

#### **Qualities for Near-Edge Printers**

Wax – The low-cost alternative for paper and cardboard

N 102 Sw / ecoNE High-contrast print, high printing speeds

#### Wax/Resin – High resolution at highest printing speed

N 402 Sw / direct High contrast and speed for direct printing N 403 Sw / perfect Perfect all-round properties N 451 FG Special quality for safety applications, green fluorescence under UV light

#### Resin – Very good resistance

N 501 Sw High resistance against smearing and scratching

N 544 Sw / resistNE Flexible and universally usable, sensitive N 508 Sw Good resistance against chemicals, also for flat-head printers

N 849 Sw High resistance, only for special applications **N 526 Sw** For difficult materials, steam-resistant

Qualities for Flat-Head Printers

Wax – High-contrast, sensitive, low-cost, for paper and cardboard materials T 143 Sw / brilliant T 152 Sw / ratio T 151 Sw / prima Our low-cost bestseller! High contrast for jet-black print also High sensitivity and excellent resoon vellum lution T 308 Sw T 153 Sw T 154 Sw / brilliant+ Sensitive with special top-coat Top quality with synthetic resins Premium wax+ quality for all surfor better resistance and highest faces resolution Wax/Resin – Universally usable, with higher mechanical resistance T 414 Sw T 436 Sw T 449 Sw Very flexible, high contrast, good High resolution and a large range of Premium quality with good all-round resistance against chemicals applications resistance, good on films T 454 Sw T 455 Sw / vario+ T 456 Sw / ideal For difficult surfaces, high mechani-Sensitive and universally usable, Flexible all-round quality, highly cal resistance resistant against abrasion, resistant good resistance against oil and high

T 459 Sw / mix Best price – of universal use

#### Resin – Resistant all-round qualities and special products for particular applications

against brake fluid

T 506 Sw / resist The best-seller with good all-roundproperties

**T 549 Sw** Very good chemical resistance, above all against fuel and brake fluid

**T 649 Sw** For textile labels, resistant against washing, dry-cleaning and ironing

**T 845 Sw** Highly resistant, for films and cards, very good chemical resistance, temperature-resistant

**T 860 Sw** Special quality of ultrahigh resistance, low sensitivity, for films and cards **T 507 Sw** Very good on paper, low sensitivity, highly resistant against alcohol

T 555 Sw / resist+ Flexible, sensitive, high contrast on paper

T 741 Sw The specialist for heat-resistant print on paper labels

T 850 Sw Highly resistant special quality, high contrast on films, low sensitivity **T 518 Sw** All-round quality, good for paper

temperatures

**T 580 Sw** For films in outdoor applications

T 742 Sw Extremely high resistance against organic solvents, only on selected materials

T 858 Sw Special quality for PVC cards

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### Product Line "special"

#### **Solutions for special Applications**

One focus of our product range is on thermal transfer ribbons in **special** qualities:

- Qualities for printing PVC cards, for mail franking systems and for sign printers for outdoor applications according to OEM specification
- Two-coloured ribbons developed specifically for a defined application
- Ribbons for security applications with green fluorescence under UV light
- Customer-specific special colours, etc.

Due to our long-standing experience with thermal transfer ribbons, we develop ribbon qualities according to your requirements – with particular properties for unusual applications. For label printing and other fields.

With a limited additional effort, we can adapt existing colours on the basis of the PANTONE<sup>®</sup> system according to customer-specific requirements – the minimum amount is smaller than you may think!

On the following page we would like to present some projects from recent years.

You determine today what we will produce tomorrow.

#### Your benefits:

**Tailor-Made Qualities** With exactly defined properties.

**Special Applications also apart from Label Printing** We define, develop and produce new recipes and coatings.

**Special Colours** Of existing qualities in quantities starting from 10,000 m<sup>2</sup>.



### Know-how in Development and Coating



#### **Type Plate Print in Grey**

- Grey resin ribbon for different synthetic materials
- Prints on white and black labels
- Very high resolution and resistance
- Colour fulfils the specification of Asian electronics manufacturers



#### **Fluorescent Colours**

- Fluorescent thermal transfer ink
- Colour copy or scan clearly differs from the original



#### Brilliant Colours on Black Substrate

- A special pigment mixture makes it possible to print on a dark substrate
- Resin quality with high resistance



#### **Two Colours**

- Black for clear codes with high readability
- Orange as a signal colour can be printed
- simultaneously if necessary



#### **Counterfeit Protection**

- Black print for text and machine-readable codes
- Green fluorescence under UV light
- Copy protection for valuable documents, brand protection, etc.



#### **Document Safety**

- Two-coloured safety ribbon
- Dark print (here blue) for codes
- Fluorescent ink as a copy protection



#### **UV-Resistant Sign Print**

- Series of 5 colours in resin quality for outdoor use
- Especially UV-resistant pigments, tested according to DIN EN ISO 11341
- Ribbons in print width 490 mm for special sign printer



#### Identification in the Electronics Industry

- Highly resistant identification on different materials
- In a number of colours
- Also for special applications



#### **Your Project**

- We are looking forward to your enquiry for a special solution!



## The Colours

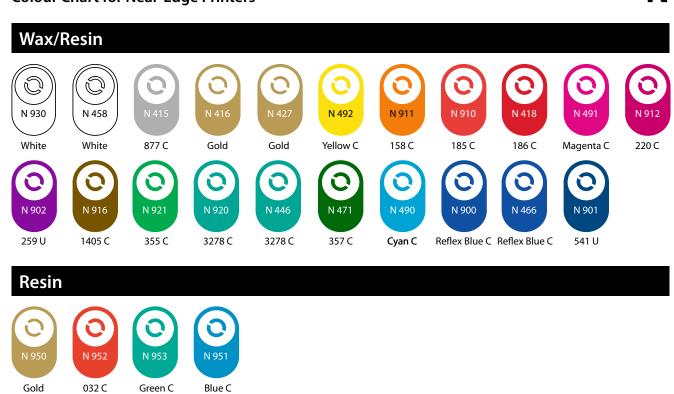
#### Now it gets colourful! – Choose between 88 tones

As with our black qualities, we also offer coloured thermal transfer ribbons in all quality grades. More than 80 colours are available in the qualities wax, wax/resin and resin. For flat-head and near-edge printers. In rolls with a width between 12.7 mm and 500 mm, for direct printing systems, label and card printers. Some of them are tested for food-safety or resistance against UV radiation. Thus we have the most comprehensive range of colours on the market!

The PANTONE<sup>®</sup> code provides a first orientation as to the tones you are looking for and those available in our standard range. By creating comparability, it helps you in finding the right quality.

And in case you should really not find what you are looking for, we will be happy to adapt our products for you and to develop special colours meeting your customers' specifications exactly.

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#### **Colour Chart for Near-Edge Printers**

#### Т **Colour Chart for Flat-Head Printers** Wax 0 0 0 Q 0 ί 0 0 0 T 200 P 323 F T 170 T 221 T 241 T 242 T 222 T 172 184 C Cool Grey 9 C 874 C Warm Red C 192 C 214 C 4695 C 3405 C 3415 C White 3308 C Ē T 269 T 259 T 263 286 C 299 C 288 C Wax/Resin



289 C

Reflex Blue C

287 C

Resin 0 Q Q 0 Normal 0 T575 T 561 T 505 White 032 C White 424 C 431 C Green C C Cyan C Blue C 294 C **Card Printing** O O 0 0 C C C C T 525 T 520 T 542 T 504 T 574 White White 877 C 871 C 186 C 186 C 3275 C 356 C 300 C 2747 C 0 Outdoor 0 C T 582 T 585 T 588 T 586 CALOR | RTT 485 C 329 C 293 C 123 C 356 C





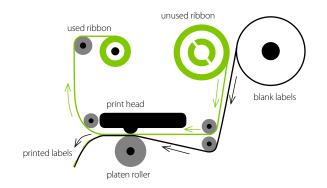
### The Thermal Transfer Printing Process

Since the mid-1980s, thermal transfer printing has developed into the leading process for variable identification and labelling in industry, commerce, logistics, and health care. In Europe, about 1 billion m<sup>2</sup> of thermal transfer ribbon are estimated to be used in 2015.

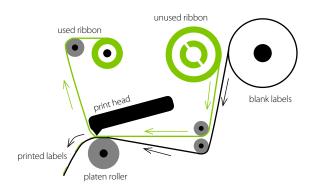
#### Printers

Today, thermal transfer printers have resolutions between 200 and 600 dpi and speeds up to 1,000 mm/s. They can be used in automatic print-and-apply systems for labels, as direct printers for packaging film or as flexible desktop printers.

Through the heat impulses of a computer-controlled print head, the meltable ink is transferred from a thin carrier film to the desired label stock. The advantage of this process: The print head covers the entire printing width, only label and inked ribbon are transported by a motor; the system is simple and therefore robust and occupies only little space.



The Thermal Transfer Print Heads



#### **Flat-Head Printers**

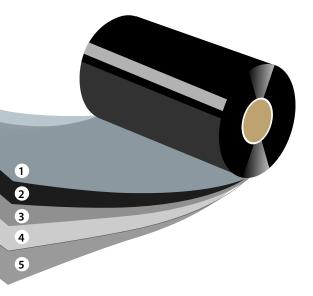
The "flat-head" is the most frequently used print head: The dotline is located about 5 to 10 millimetres away from the edge of the carrier plate. In most cases, the ribbon is deflected upwards by means of an additional roller. After the ink transfer, the separation of the media takes place with a certain spatial and temporal delay. The heat impulse is not very strong, but lasts relatively long.

#### **Near-Edge Printers**

In "near-edge" and "corner edge" print heads, the dot-line is located quite close to the edge of the ceramic carrier plate. Without any further deflection, the ribbon is guided upwards at a sharp angle. Ribbon and label are separated immediately after the ink transfer. The heat impulse is strong, but brief. "Near-edge" printers achieve their best results when used with specially matched thermal transfer ribbons.

### The Thermal Transfer Ribbon

- A thermal transfer ribbon consists of at least 3, but in most cases 4, 5 or more layers:
- 1. The top-coat (0.4  $\mu\text{m}$ ) determines the ink's adhesion to the label.
- 2. The colour of the **ink layer**  $(1 4 \mu m)$  is created by means of pigments (in case of black, this is carbon black). The matrix consists of waxes and synthetic resins.
- 3. The **release layer** (0.4 μm) facilitates the ink's detachment during the printing process.
- 4. The base film is made of polyester (4.5  $\mu m$ ).
- 5. The **back coating** (0.2 µm) decreases the ribbon's friction on the print head and protects the base film from burning through.

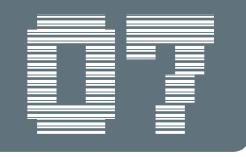


#### **The Ribbon Qualities**

Various chemicals, like waxes, synthetic resins, pigments and additives and their respective percentages, as well as the ribbon's structure made up of different layers determine a thermal transfer ribbon's properties. Every ribbon quality has a back coating on the base film – the coated side has the following structure:

Product Group	Coating Method	Structure Coated Side	Properties
Wax	Hot-melt	Often just 1 relatively thick ink layer (3-4 μm)	High sensitivity and blackness, low resistance
Wax+	Often a combination of hot-melt and solvent	Usually 2 layers	Improved resistance
Wax/Resin	Solvent	3 layers	Medium resistance, high resolution
Resin	Solvent	3 layers, thin ink layer	High to extreme resistance







### **Ribbons and Labels**

Today, a large number of different ribbon qualities makes it possible to achieve durable optimum print results on numerous label materials. The print is monochrome; apart from black, a large range of colours is available. It is of vital importance to choose the right ribbon quality.

### Combinations of Ribbon Qualities and Label Stock

Ribbon Quality Label Stock	Wax ratio brilliant brilliant+	Wax/Resin mix vario+ ideal direct perfect	Resin resist resistNE
Vellum	0	0	0
Coated papers	0	0	0
PE (Polyethylene)	0	0	0
PP (Polypropylene)	0	0	0
PVC (Polyvinylchloride)	0	0	0
PS (Polystyrene)	0	0	0
PET (Polyester)	0	0	0
Coated synthetics	0	0	0

🔘 suitable

limited suitability

unsuitable

#### **Print Quality and Resistance**

It all starts with a high print quality: even small fonts, fine lines and graphics should be represented with high contrast and sharpness, barcodes and matrix codes have to be properly readable.

Besides, the printed label must be resistant to external influences that can occur in its field of use. We distinguish between physical resistance against smearing, scratching, erasure, UV radiation, and heat and resistance against chemicals, like e. g. cleansing agents, alcohol, fuel, oil and organic solvents.

#### **Standards and Certificates**

Depending on the application, label and ribbon have to fulfil numerous standards or to be approved for certain conditions, e. g. the contact with foodstuffs. And then there is, of course, the economic aspect: The ideal ribbon has to meet all the requirements and at the same time be as cheap as possible.

All our thermal transfer ribbons are free from heavy metals and substances mentioned on the SVHC list of the REACh regulation. They comply with the standards RoHS and WEE. Almost all of them are halogen-free. Numerous qualities have been approved by ISEGA for food contact. Some of our qualities are UL certified – exclusively in combination with defined label stock. Our sales department will be happy to give you detailed information!

You can trust our thermal transfer ribbons – they are manufactured by us according to strict quality criteria. Our quality management system is certified under ISO 9001:2008.

### About CALOR | RTT

#### At Your Service for Several Decades Already

The two companies CALOR and REGMA Transfert Thermique (RTT) are an independent German-French group with 50 employees, which deals exclusively with the development, manufacture and sales of thermal transfer ribbons.

In Normandy in 1986, REGMA started coating thermal transfer ribbons – at that time still as a part of the Rhône-Poulenc group and under Japanese licence. The CALOR GmbH was founded as a specialised converter of TT ribbons in Baesweiler near Aachen in 1991 by Andreas Emonts-pohl. Together we have been successful in the market since 2002 – thanks to the good cooperation with our customers!

### You Benefit from ...

#### ... Long-standing Know-how

Having been pioneers in thermal transfer technology in Europe, we place all our knowledge and experience at your disposal and are happy to advise you in a competent way – in sales and order fulfilment as well as in our technical support and, of course, in our management.

#### ... the Comprehensive Product Range

You can choose from more than 100 black and coloured qualities and thus from the largest product range in the whole market. Three product lines make sure there is always a customer-oriented solution: **compact** standard products are supplied from stock at short notice on very attractive terms, any desired dimensions are **made to measure** and labelled individually, and we are quite willing to develop new **special** products for unusual applications.

#### ... Certified Quality

At CALOR | RTT you only get very good products whose proven quality has been constantly high over many years. All of them comply with the European directives for dangerous ingredients. Many of our qualities are approved for contact with foodstuffs. Our processes are certified in accordance with DIN ISO 9001:2008.

#### ... Impeccable Service

Sample rolls are ready for you to try out, and you will receive our order confirmation within 24 hours. Brochures and data sheets are at your disposal. In-stock articles from our **compact** range are shipped on the day of your order.

Short delivery times, individual advice based on your requirements and facilities, and personal customer care are all of great importance to us.

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#### CALOR

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