



THERNA
harmony of nature



Non-Stick | Decorative

Cookware - Bakeware - Electrical Appliances - White Goods - Glass

About Us

THERNA entered the sector in 2017 as the new brand of Kanat Boya, one of the leading manufacturers in Turkey in Protective and Industrial Paints and Coatings. Therna aims at bringing a new excitement and perspective to the industry with Kanat Boya's experience of more than 32 years and quality registered by the professionals of the industry.

Therna is offering solutions in diverse areas with its extensive product range covering coatings for Cookware, Bakeware, Small House Appliances, White Goods and Glass. Therna has documented its quality through international certificates. Backed by the power of Kanat Boya's tens of specialized field personnel, R&D staff of 50+ members, annual production capacity of 23.000 tons at its factories at Izmir and Osmaniye, Therna aims at being a significant competitor of global brands not only in Turkey but in the international area as well.

We aimed to make our products that favoured by leading manufacturers pure as water and registered our quality with international certificates.



Ultimate





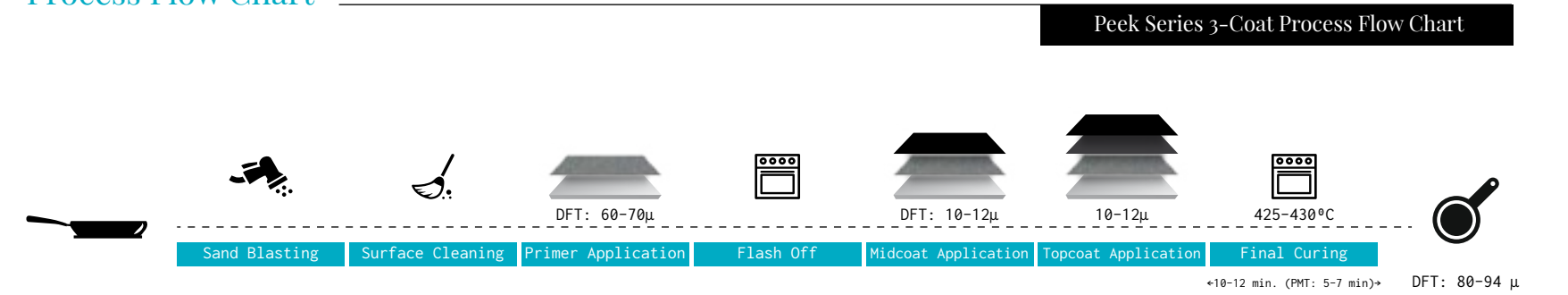
ULTIMATE series is a high-level coating system designed to meet to the demanding conditions and high expectations. It is preferred regardless of price; especially in hotels or restaurants where superior durability and high performance are expected.

- » PEEK resin, known as the most durable resin in its class, is used in Ultimate series.
- » Primer of Ultimate contains specially modified fluoropolymers. This provides the toughest base for coating and excellent adhesion to the substrate.
- » It can be applied as 3 or 4 coat depending on performance requirements.
- » When it is applied as 4 coat system, it provides highest performing non-stick coating compared to any other series.
- » It provides uniform heat transfer for healthy cooking and reduces the risk of burning food.

Technical Details

Application	Interior or exterior of coating
Substrate	Aluminum, die cast aluminum, forged aluminum or stainless steel
Pretreatment	Sand blasting or grit blasting
Aluminum Thickness	4mm or higher
Application Method	Automatic or manual spray gun
Number of Coats	3 4
Curing Condition	425-430 °C 10 min. (PMT: 5-7 min.)
Dry Film Thickness (DFT)	80 - 94 μ
Color Availability	Some selected colors
Max. Operating Temperature	240-260 °C
Non-Stick Performance	★★★★★
Abrasion Resistance	★★★★★
Corrosion Resistance	★★★★★
Tiger Paw Test	★★★★★

Process Flow Chart



DFT: Dry Film Thickness
PMT: Peak Metal Temperature

Actual process flow may differ according to customer line, please contact Therna Representative for more information.

Coloria





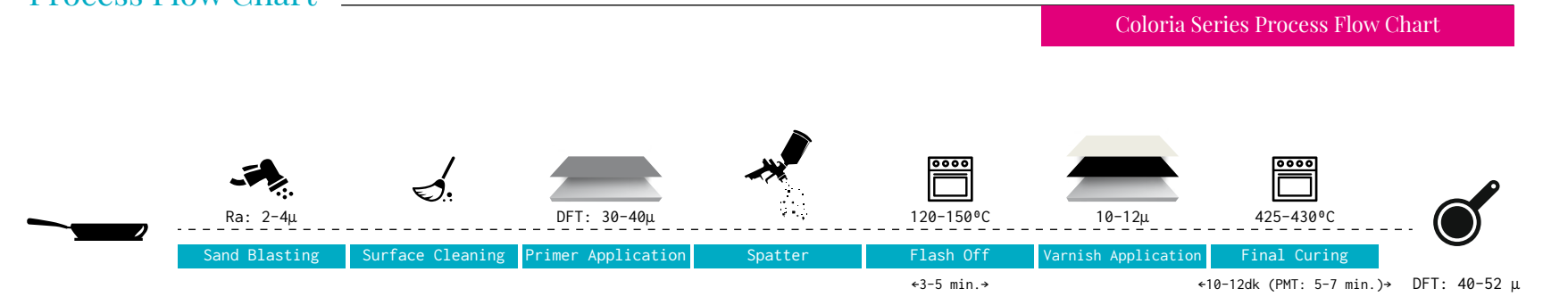
COLORIA is the special effect series of Therna. It stands out with its distinctive and impressive appearance compared to common non-stick coatings.

- » It is applied as 2 coat system with specially developed spatters.
- » Special spray guns are required to apply Coloria series.
- » The best results are obtained on thick aluminum substrates.
- » Coloria provides excellent abrasion resistance and non-stick performance.
- » It is available in attractive dark shades.

Technical Details

Application	Interior or exterior coating
Substrate	Aluminum, die cast aluminum, forged aluminum or stainless steel
Pretreatment	Sand blasting or grit blasting
Aluminum Thickness	4mm or higher
Application Method	Automatic or manual spray gun
Number of Coats	2
Curing Condition	425-430 °C 10 min. (PMT: 5-7 min.)
Dry Film Thickness (DFT)	40-52 µ
Color Availability	Some selected colors
Max. Operating Temperature	240-260 °C
Non-Stick Performance	★★★★☆
Abrasion Resistance	★★★★☆
Corrosion Resistance	★★★★☆

Process Flow Chart



DFT: Dry Film Thickness
PMT: Peak Metal Temperature

Actual process flow may differ according to customer line, please contact Therna Representative for more information.

Non - Stick





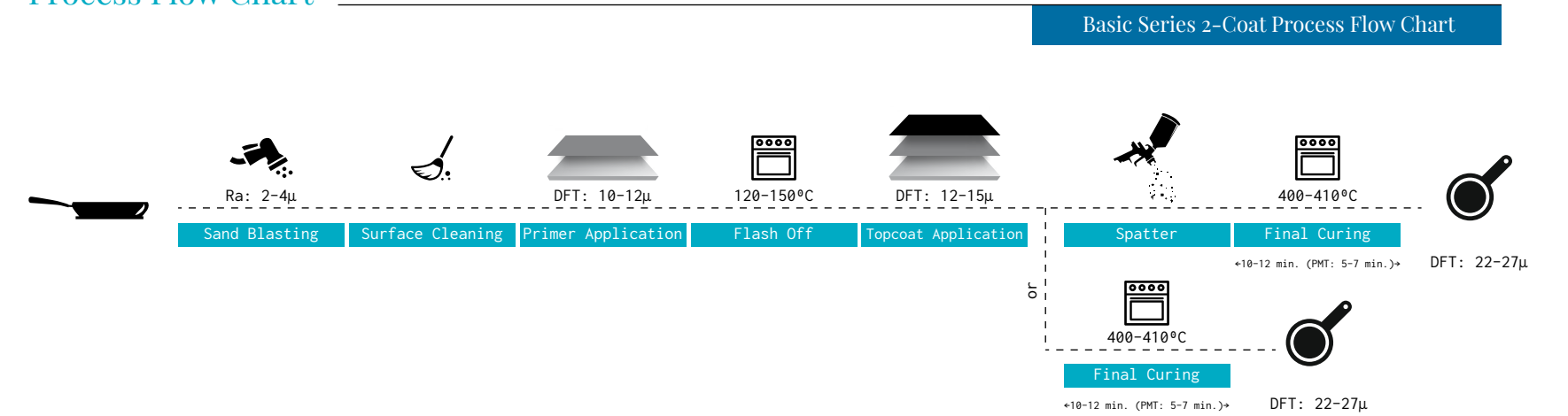
BASIC Series is one of the most popular 2 coat system in the market that meets the basic requirements of non-stick coatings. It stands out with its excellent price/performance balance.

- » The most preferred coating system by the cookware manufacturers.
- » Selected due to its competitive properties as well as the price advantage.
- » It has good non-stick performance and competitive abrasion resistance in its class.
- » Extensive range of colors.
- » It is available in opaque and metallic colors as well as granite and spatter effects.

Technical Details

Application	Interior or exterior coating
Substrate	Aluminum, die cast aluminum or forged aluminum
Pretreatment	Sand blasting or metal brush cleaning
Application Method	Automatic or manual spray gun
Number of Coats	2
Curing Condition	400-410 °C 10 min. (PMT: 5-7 min.)
Dry Film Thickness (DFT)	22 - 27 μ
Color Availability	Extensive range of colors
Max. Operating Temperature	240-260 °C
Non-Stick Performance	★★★★☆
Abrasion Resistance	★★★★☆
Corrosion Resistance	★★★★☆

Process Flow Chart



DFT: Dry Film Thickness
PMT: Peak Metal Temperature

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ADVANCED series is developed to meet medium-high level non-stick coating requirements. It has a wide range of applications such as cookware, bakeware, small household appliances, etc.

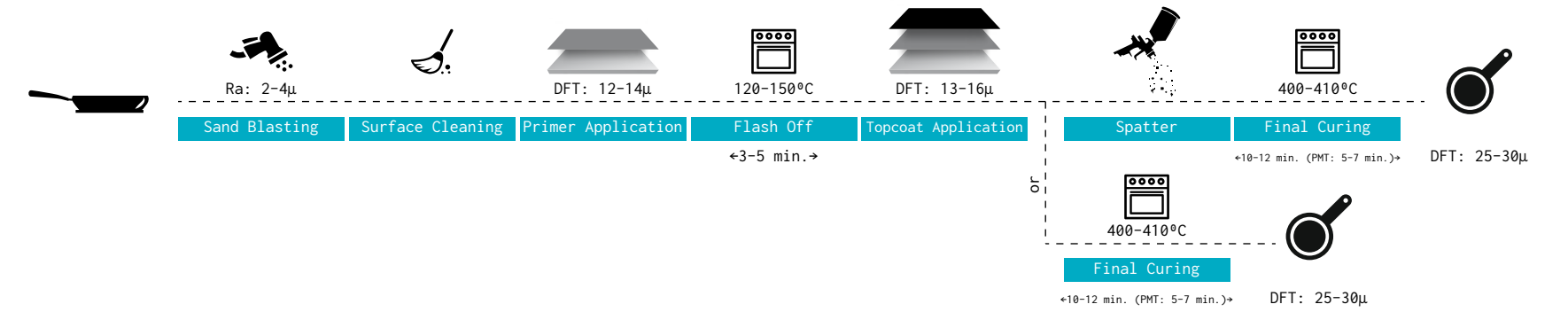
- » Middle-high level coating system with better abrasion resistance than Basic series.
- » Primer of Advanced is strengthened with extra abrasive materials to extend the lifetime.
- » Advanced is available as 2 or 3 coat system.
- » When applied as 3 coat system, it provides better performance in terms of release and abrasion.
- » Various colors are available.

Technical Details

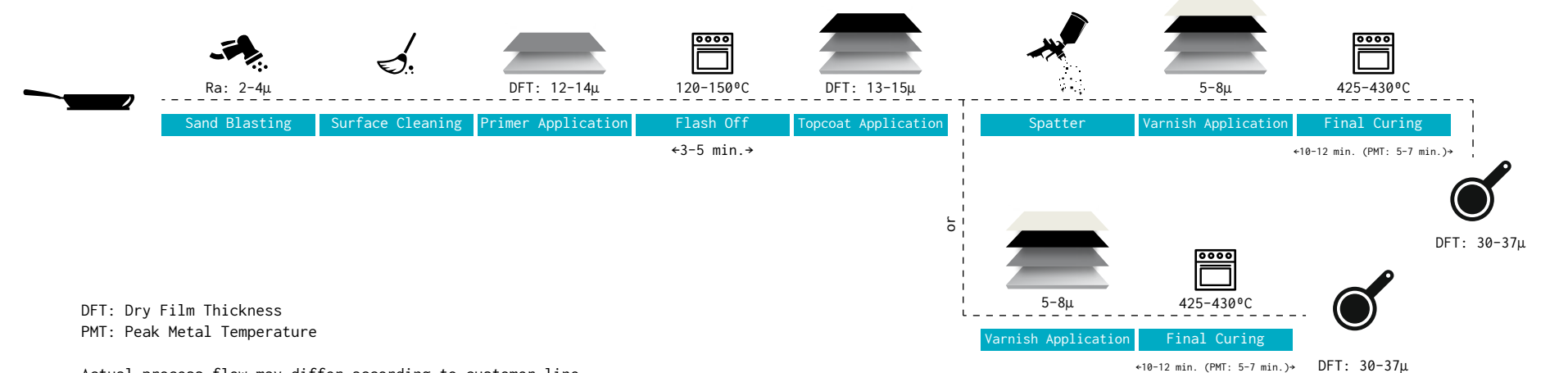
Application	Interior or exterior coating
Substrate	Aluminum, die cast aluminum or forged aluminum
Pretreatment	Sand blasting or metal brush cleaning
Application Method	Automatic or manual spray gun
Number of Coats	2 3
Curing Condition	400-410 °C (2 coat), 425-430 °C (3 coat) 10 min. (PMT: 5-7 min.)
Dry Film Thickness (DFT)	25-30 μ (2 coat), 30-37 μ (3 coat)
Color Availability	Various opaque and metallic colors
Max. Operating Temperature	240-260 °C
Non-Stick Performance	★★★★☆
Abrasion Resistance	★★★★☆
Corrosion Resistance	★★★★☆

Process Flow Chart

Advanced Series 2-Coat Process Flow Chart



Advanced Series 3-Coat Process Flow Chart



DFT: Dry Film Thickness
PMT: Peak Metal Temperature

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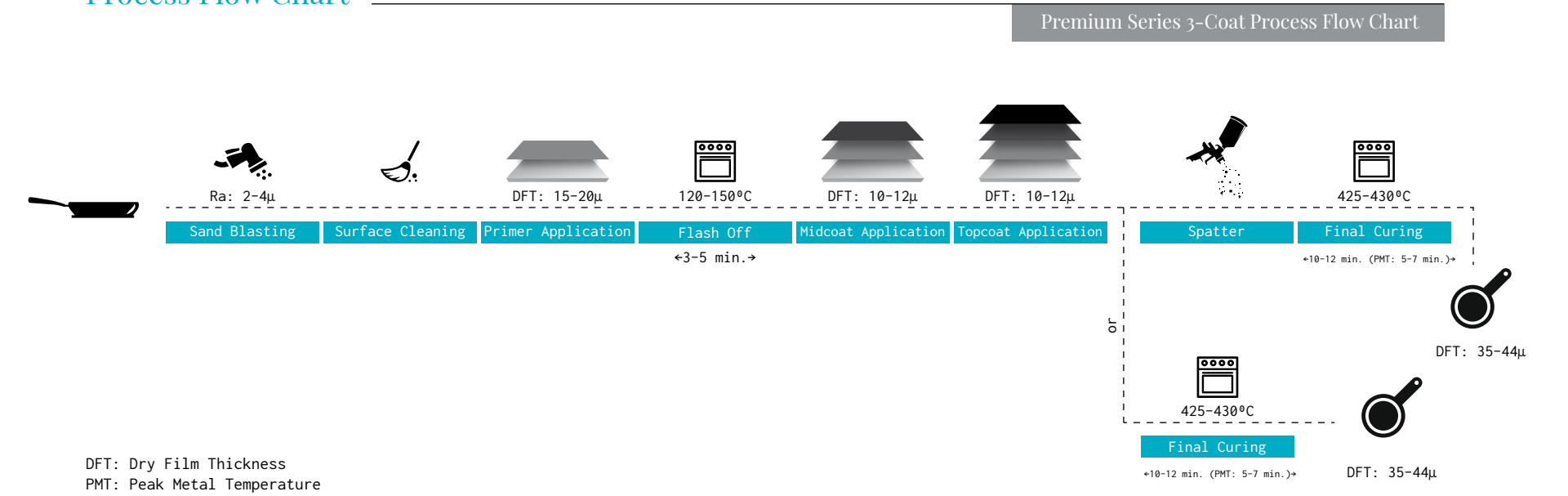
PREMIUM series is designed to meet requirements of high level non-stick coatings. It is one of the best performing non-stick coating system of Therna.

- » State-of-the-art technologies are used in this series. It contains specially modified resins and pigments to provide outstanding lifetime.
- » It has various versions to meet different requirements in terms of quality and performance. (P1, P2, P3)
- » Available in attractive colors and effects.
- » Color range is limited compared to other series.

Technical Details

Application	Interior or exterior coating
Substrate	Aluminum, die cast aluminum, forged aluminum or stainless steel
Pretreatment	Sand blasting or grit blasting
Aluminum Thickness	4mm or higher
Application Method	Automatic or manual spray gun
Number of Coats	3
Curing Condition	425-430 °C 10 min. (PMT: 5-7 min.)
Dry Film Thickness (DFT)	35-44 μ
Color Availability	Some selected colors
Max. Operating Temperature	240-260 °C
Non-Stick Performance	★★★★☆
Abrasion Resistance	★★★★☆
Corrosion Resistance	★★★★☆
Tiger Paw Test	★★★★☆

Process Flow Chart



Actual process flow may differ according to customer line, please contact Therna Representative for more information.



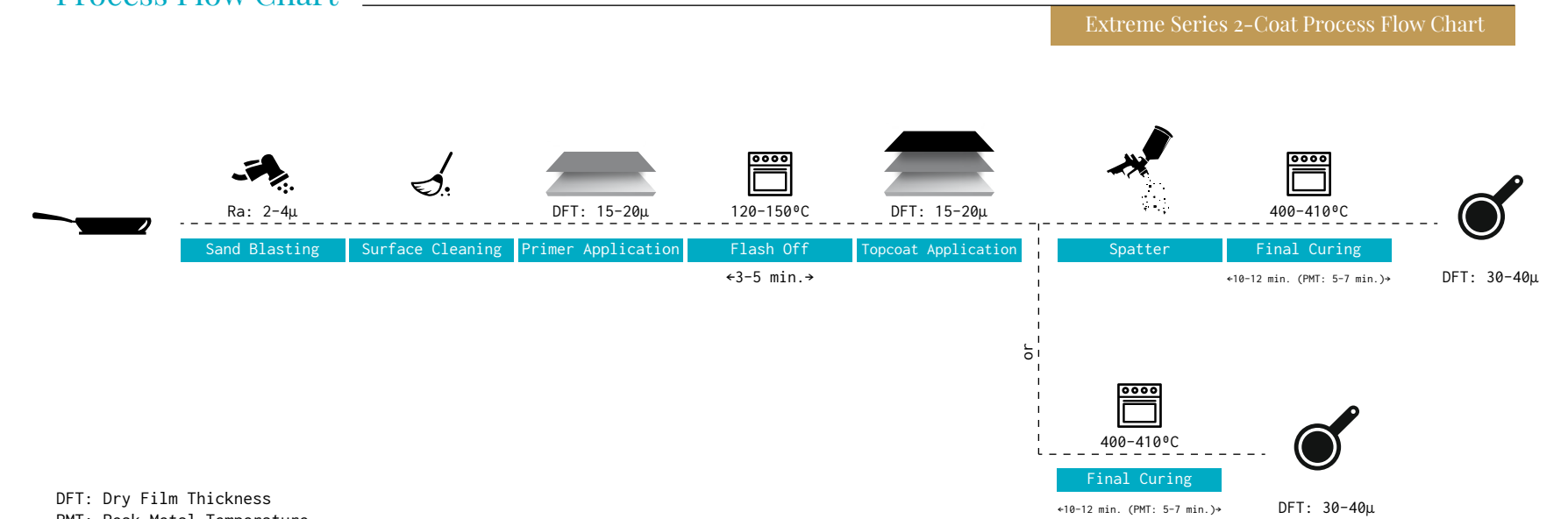
EXTREME series is developed for excessive non-stick performance. Extreme is used for high quality cookware, where the release property is more important than abrasion resistance.

- » It is a special 2 coat system, which provides similar properties as 3 coat systems.
- » 30 - 40 μ dry film thickness can be obtained with 2 coats.
- » Provides a shinier look than standard 2 coat systems.
- » Specially modified fluoropolymers are used in this series to provide the best release properties.
- » Primer of Extreme contains specially reinforced materials as well modified fluoropolymers to provide excellent adhesion and abrasion resistance.
- » Excellent results in tiger paw and egg release tests.

Technical Details

Application	Interior or exterior coating
Substrate	Aluminum, die cast aluminum or forged aluminum or stainless steel
Pretreatment	Sand blasting or grit blasting
Aluminum Thickness	4mm or higher
Application Method	Automatic or manual spray gun
Number of Coats	2
Curing Condition	400-410 °C 10 min. (PMT: 5-7 min.)
Dry Film Thickness (DFT)	30-40 μ
Color Availability	Some selected colors
Max. Operating Temperature	240-260 °C
Non-Stick Performance	★★★★★
Abrasion Resistance	★★★★☆
Corrosion Resistance	★★★★★
Tiger Paw Test	★★★★☆

Process Flow Chart



Actual process flow may differ according to customer line, please contact Therna Representative for more information.



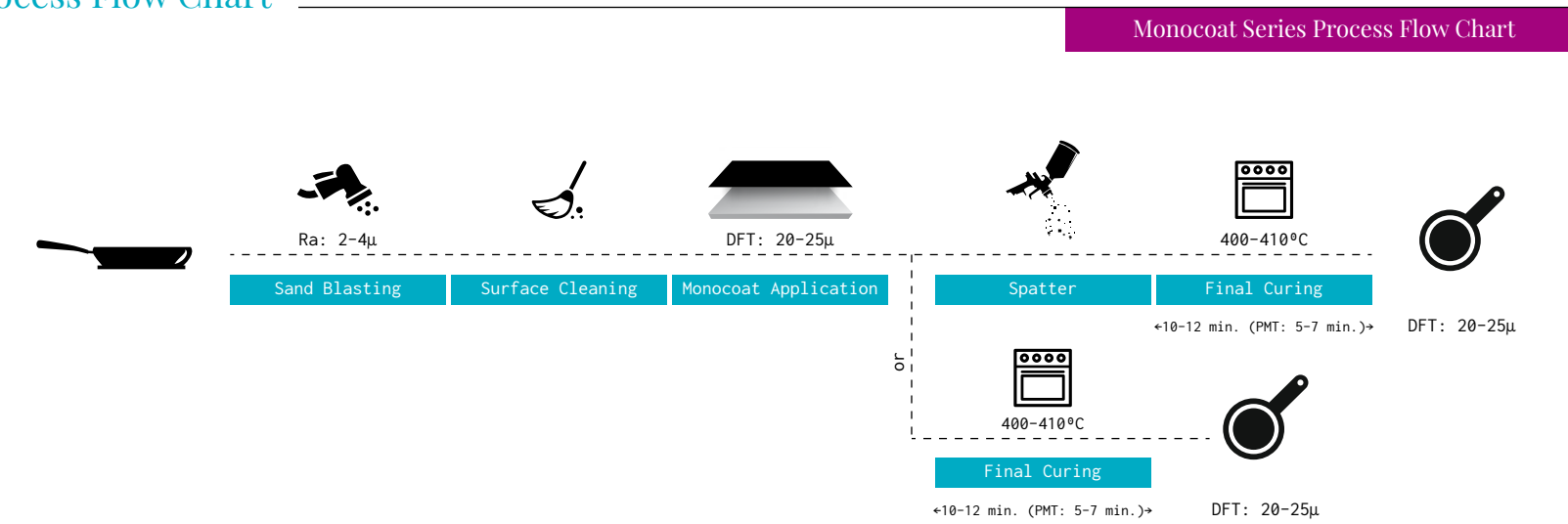
MONOCOAT series is designed for the products such as bakeware and cake molds where the life expectancy of the coating is not so important.

- » Water-based and solvent-based versions are available.
- » It can be also used on electrical appliances like iron sole plates and toaster machines.
- » Monocoat provides economical solutions where the requirements are not too high.
- » Normally limited colors (dark shades) are available, but there is more color option for bakewares.

Technical Details

Application	Interior or exterior coating
Substrate	Aluminum or die cast aluminum
Pretreatment	Sand blasting or grit blasting
Aluminum Thickness	2mm or higher
Application Method	Automatic or manual spray gun
Number of Coats	1
Curing Condition	400-410 °C 10 min. (PMT: 5-7 min.)
Dry Film Thickness (DFT)	20-25 µ
Color Availability	Some dark colors
Max. Operating Temperature	220-240 °C
Non-Stick Performance	★☆☆☆☆
Abrasion Resistance	★☆☆☆☆
Corrosion Resistance	★☆☆☆☆

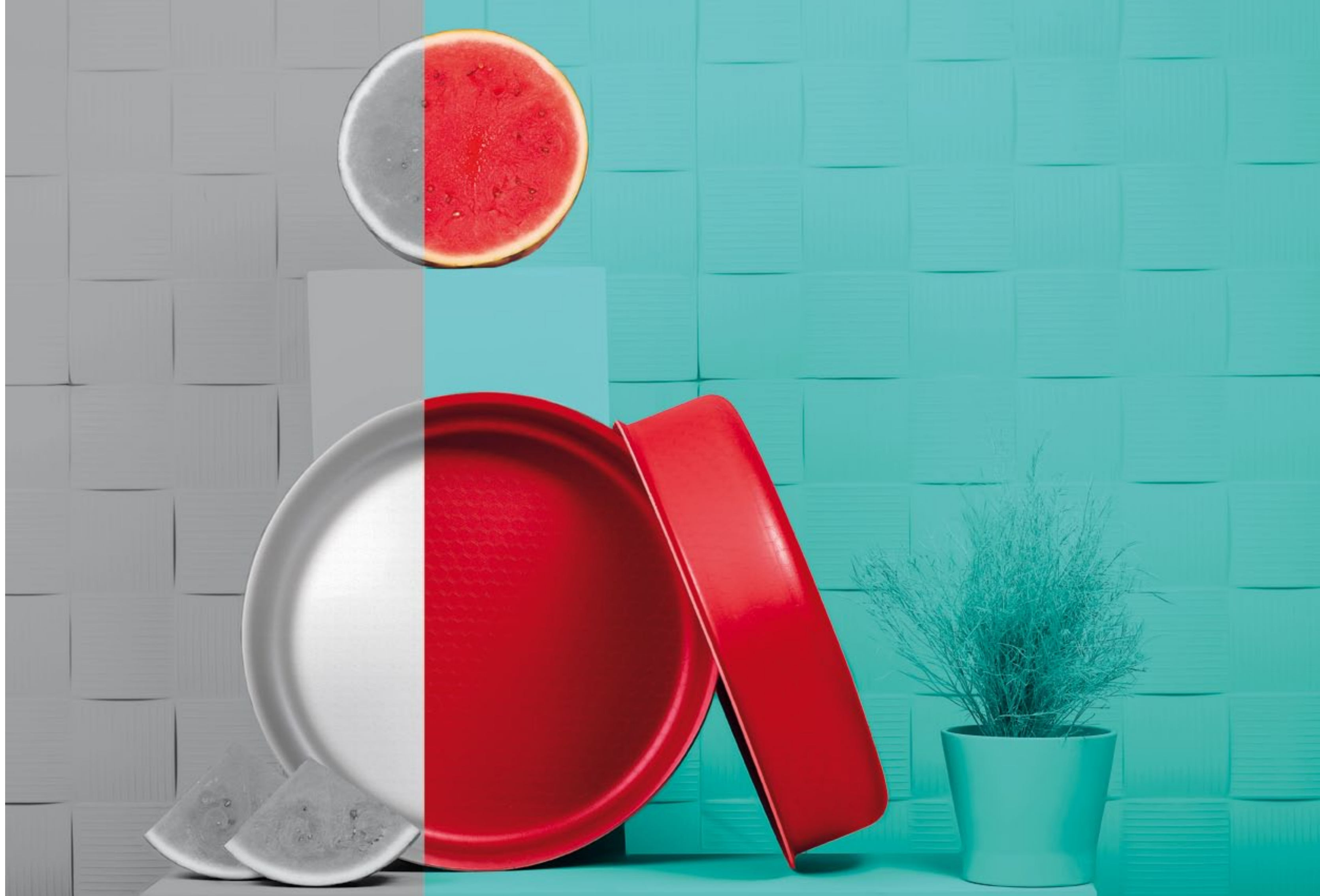
Process Flow Chart



DFT: Dry Film Thickness
PMT: Peak Metal Temperature

Actual process flow may differ according to customer line,
please contact Therna Representative for more information.

Roller





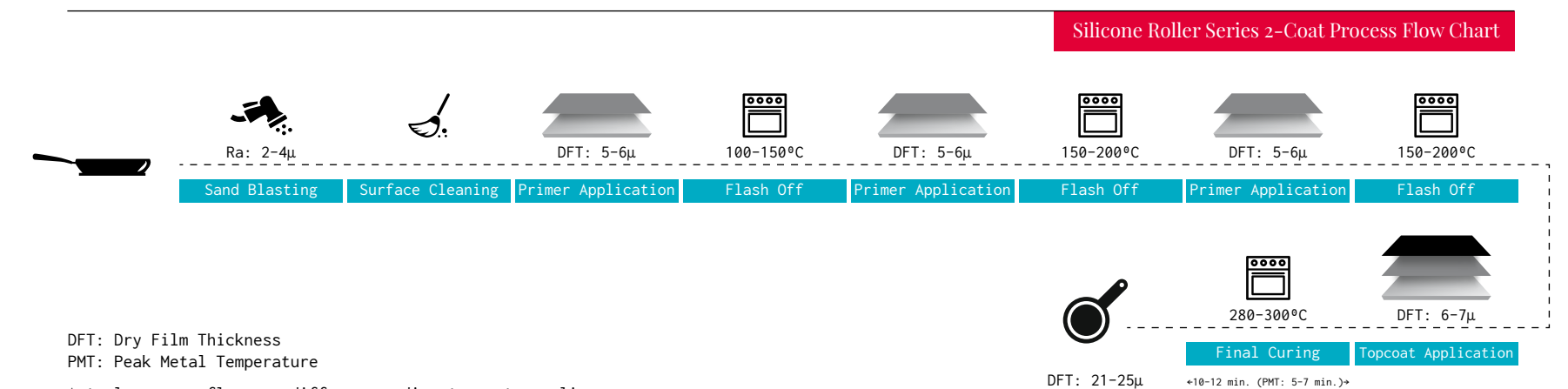
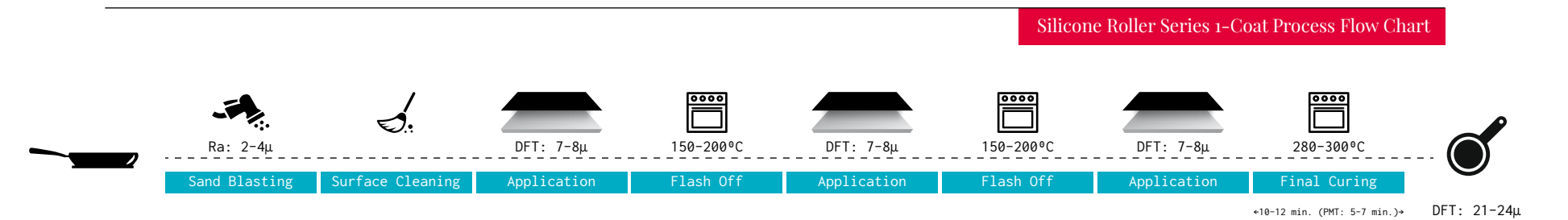
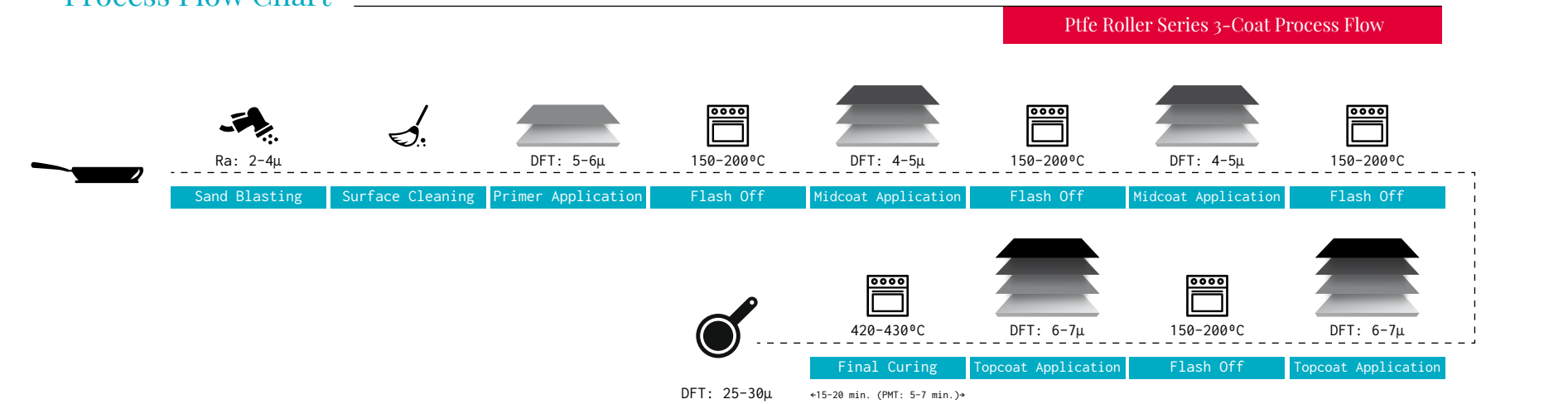
ROLLER series is specially developed for the roller coating production lines. It is designed to be applied on aluminum plates first and then pressed to form the cookware (post-forming).

- » 3 different versions are available; PTFE, silicone and polyester.
- » 3 coat system which provides excellent release and abrasion properties.
- » Different primer, midcoat and topcoat combinations are available according to requirements.
- » It is available in metallic colors. It also provides a solution for patterned roller coating applications.

Technical Details

Application	Interior	Exterior
Type	Water based (PTFE)	Solvent based (Silicone)
Substrate	Aluminum	Aluminum
Pretreatment	Sand blasting, grit blasting or wire brushing	Sand blasting, grit blasting or wire brushing
Aluminum Thickness	2mm-3mm	2mm-3mm
Application Method	Roller coating	Roller coating
Number of Coats	3 Coats (4-5 rollers)	1 Coat 2 Coats (2-4 rollers)
Curing Condition	420-430 °C 10 min. (PMT: 5-7 min.)	280-300 °C 10 min. (PMT: 5-7 min.)
Dry Film Thickness (DFT)	25-30 μ	21-25 μ
Color Availability	Some selected colors	Various colors
Max. Operating Temperature	240-260 °C	140-210 °C
Non-Stick Performance	★★☆☆☆	★★★★☆
Abrasion Resistance	★★☆☆☆	★★★★☆
Corrosion Resistance	★★★☆☆	★★★★☆

Process Flow Chart



DFT: Dry Film Thickness
PMT: Peak Metal Temperature

Actual process flow may differ according to customer line, please contact Therna Representative for more information.

Silicone





SILICONE series which is developed for exterior surface of cookware, has wide range of color and effect. It provides heat resistance during cooking and also protection against stain and dishwashing.

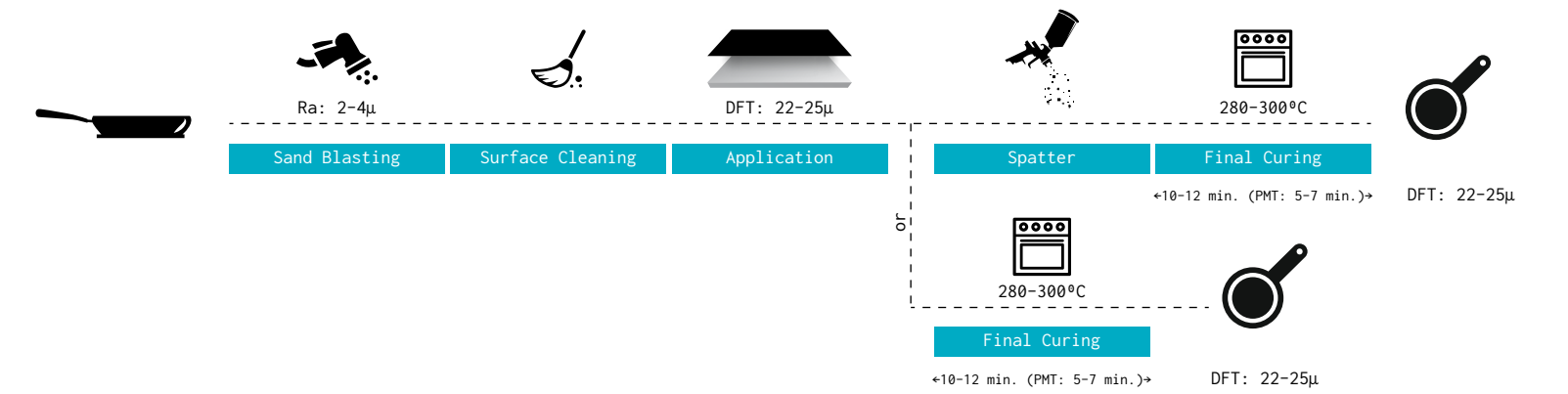
- » The modified resin of Silicone is combined with high quality pigments and additives to provide outstanding quality.
- » Silicone series provides excellent heat and dishwasher resistance.
- » It has wide range of color and effect options.
- » When applied as 2 coat system with varnish, it provides shiny and aesthetic look on the surface.

Technical Details

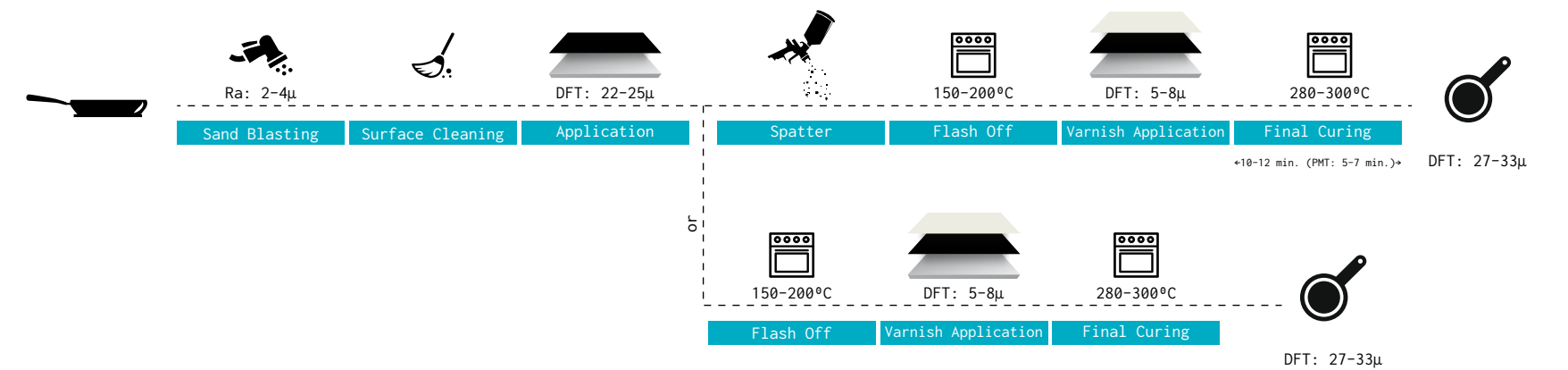
Application	Exterior of cookware
Substrate	Aluminum, die cast aluminum, forged aluminum or stainless steel
Pretreatment	Sand blasting or grit blasting
Aluminum Thickness	2mm or higher
Application Method	Automatic or manual spray gun
Number of Coats	1 2
Curing Condition	280-300 °C (PMT: 5-7 min.)
Dry Film Thickness (DFT)	22-25 μ for 1 coat, 27-33 μ for 2 coats
Color Availability	Various color options
Max. Operating Temperature	220-240 °C
Boiling water adhesion	★★★★★
Dishwasher Test	★★★★★

Process Flow Chart

Silicone Series 1-Coat Process Flow Chart



Silicone Series 2-Coat Process Flow Chart



Actual process flow may differ according to customer line, please contact Therna Representative for more information.

DFT: Dry Film Thickness
PMT: Peak Metal Temperature

Bakelite





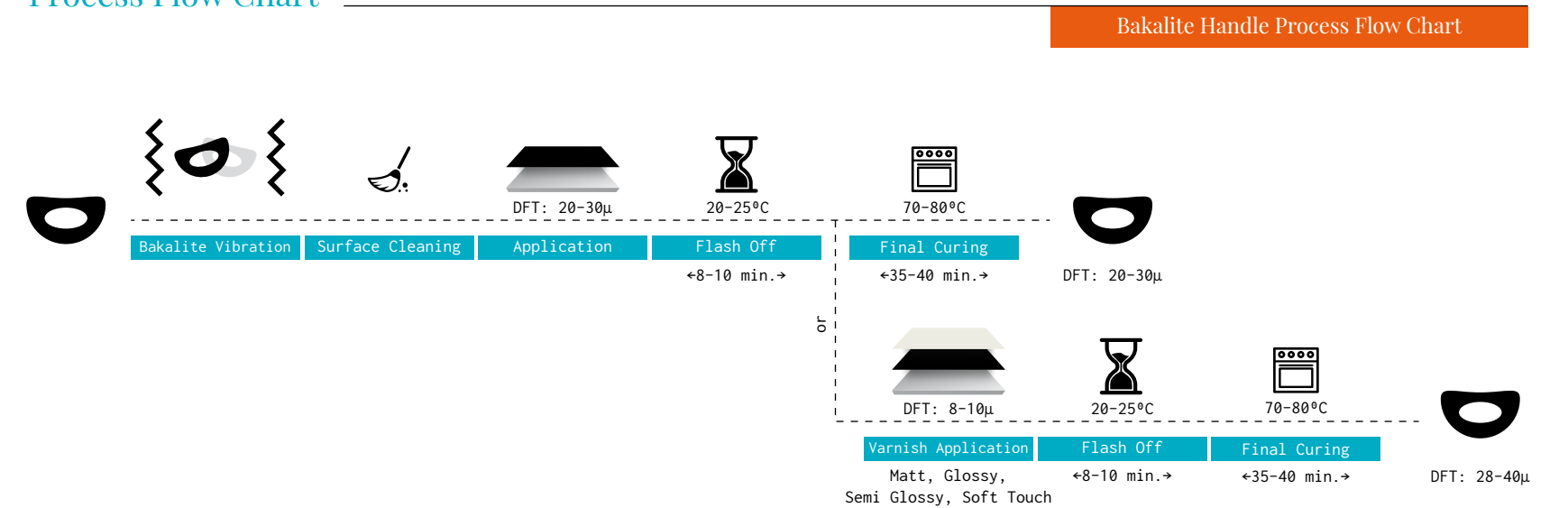
BAKELITE series is specially designed for cookware handles. It also provides a solution for stainless steel handles.

- » It has wide range of color and effect options.
- » Available in matt, glossy, semi glossy and soft touch effects.
- » It can be applied as 1 coat or 2 coat with varnish.
- » Dishwasher safe.
- » Very good heat resistance.
- » A special version for the stainless steel surfaces is available.

Technical Details

Application	Cookware handle and others
Substrate	Bakelite, aluminum, stainless steel
Pretreatment	Surface cleaning, vibration, degreasing
Application Method	Automatic or manual spray gun
Number of Coats	1 2
Curing Condition	70-80°C 35-40 min.
Dry Film Thickness (DFT)	28-40 µ
Color Availability	Various color options
Max. Operating Temperature	90-100 °C
Boiling water adhesion	★★★★★
Dishwasher Test	★★★★★

Process Flow Chart



DFT: Dry Film Thickness

Actual process flow may differ according to customer line, please contact Therna Representative for more information.

Plastic





PLASTIC series specially developed for the plastic surface of electrical home appliances and white goods. It has a wide range of color and effect options.

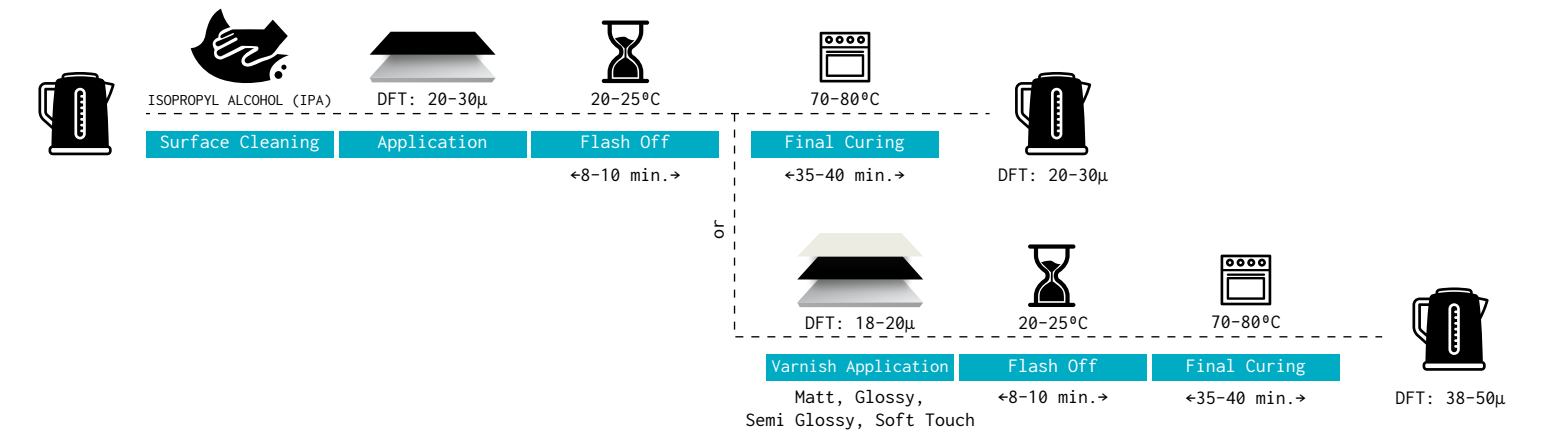
- » It can be applied on ABS, PBT, PP, PC and the other plastic surfaces.
- » It shows excellent adhesion property and scratch resistance.
- » It exhibits excellent humidity, chemical and UV resistance.
- » A wide range of color and effects is available.

Technical Details

Application	Plastic surfaces
Substrate	ABS, PBT, PP, PC and others
Pretreatment	Clean with a suitable solvent (e.g. Isopropyl Alcohol)
Application Method	Automatic or manual spray gun
Number of Coats	1 2
Curing Condition	70-80°C 35-40 min.
Dry Film Thickness (DFT)	20-30 µ for 1 coat, 38-50 µ for 2 coats
Color Availability	Various color options (metallic or opaque)
Max. Operating Temperature	80-90 °C
Adhesion after boiling in water	★★★★★
Scratch Resistance	★★★★★
UV Resistance	★★★★★
Humidity Resistance	★★★★★
Acid Resistance	★★★★★

Process Flow Chart

Plastic Process Flow Chart



DFT: Dry Film Thickness

Actual process flow may differ according to customer line, please contact Therna Representative for more information.

G l a s s





GLASS series is used for decorative purposes on glass bakewares, bottles, glasses and other glassware.

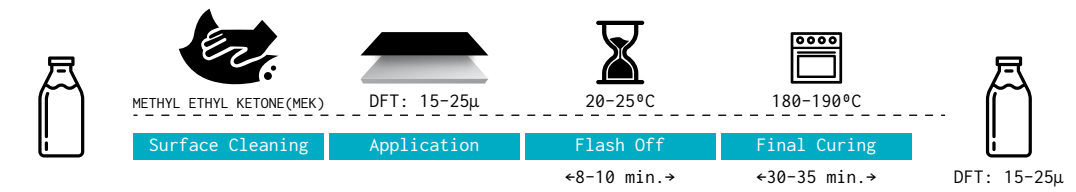
- » It shows excellent adhesion to glass surface.
- » It provides high chemical resistance.
- » Boiling water test results are very successful.
- » Available in opaque and transparent colors.
- » A special silicone-modified version is developed for glass bakeware used in high temperatures.

Technical Details

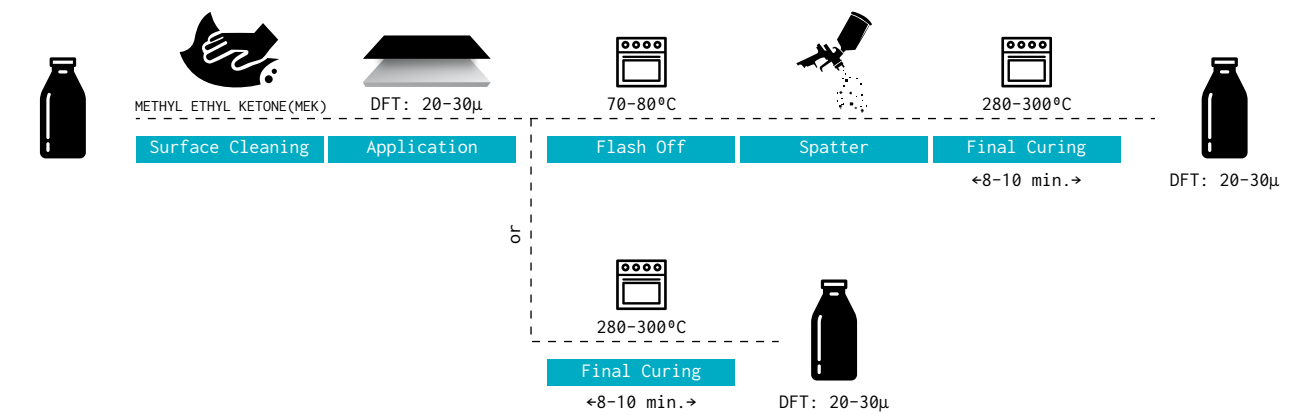
Application	Glass cookware and decorative items
Substrate	Glass
Pretreatment	Clean with a suitable solvent (e.g. Methyl Ethyl Ketone)
Application Method	Automatic or manual spray gun
System	Opaque or transparent
Curing Condition	280-300°C 8-10 min. for Opaque 180-190°C 35-45 min. for Transparent
Dry Film Thickness (DFT)	20-30 μ for Opaque, 20-30 μ for Transparent
Color Availability	Wide range of colors
Adhesion after boiling in water	★★★★★
Scratch Resistance	★★★★★
Alcohol Resistance	★★★★★

Process Flow Chart

Transparent Glass Process Flow Chart



Opaque Glass Process Flow Chart



Actual process flow may differ according to customer line, please contact Therna Representative for more information.

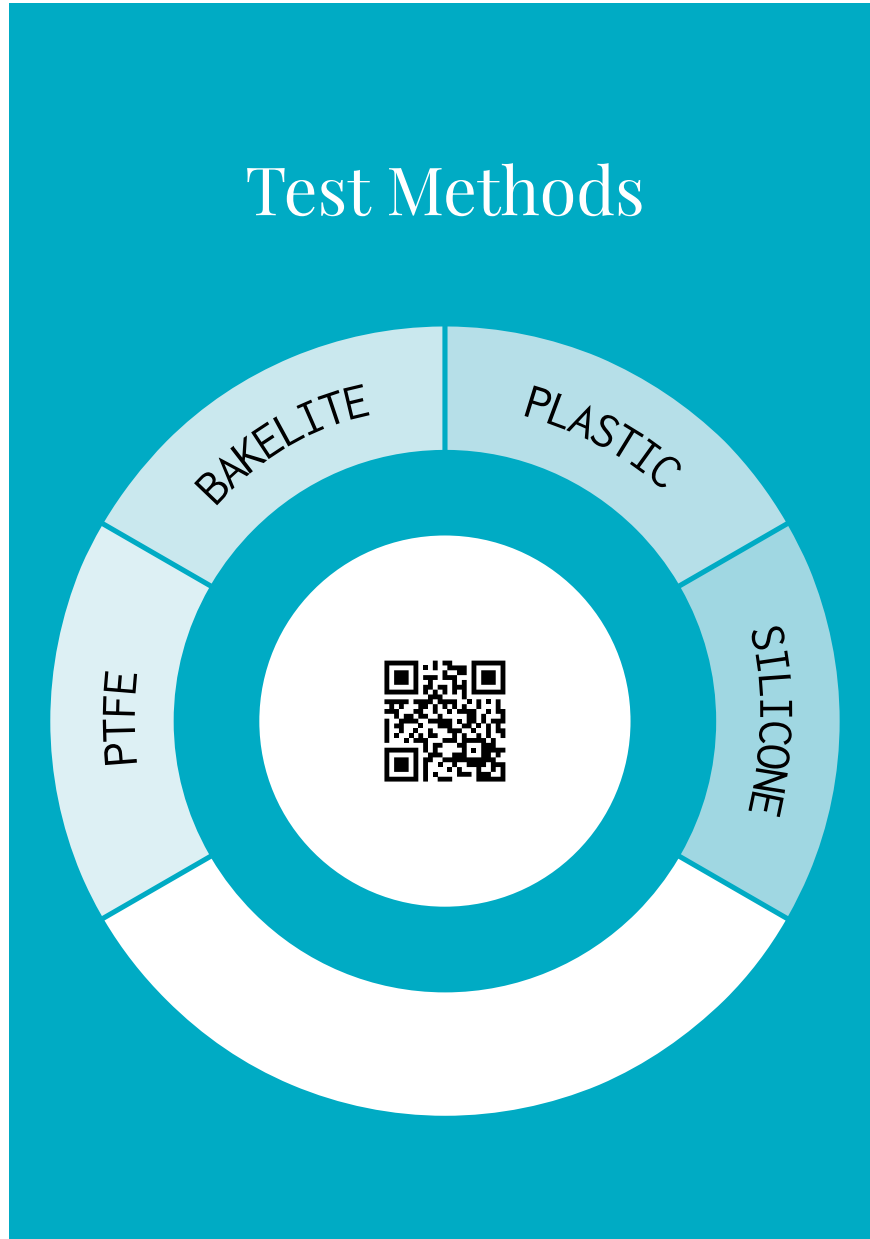
DFT: Dry Film Thickness

R&D CENTER

Offering customer-specific solutions with its R&D staff of 50+ members in two R&D centres which is equipped with international level of standards, Kanat Boya has been certified as R&D centre since 2015, by the Ministry of Science Industry and Technology.

With Therna, a special structuring has been made within the R&D department and a separate laboratory established for only this industry. Moreover, in order to satisfy the industry's sensitivity in terms of colours and expectation of fast colour matching, there is another separate colour division within the R&D department.

Therna aims at being backed by this strong R&D power and competing with global brands, creating a world brand in our country and making contribution to the national economy. In accordance with such goal, Kanat Boya transfers almost 4% of its turnover to the R&D budget every year.



Non-Stick Coatings Comparison Chart

	Non-Stick	Abrasion	Corrosion	Tiger Paw	Overall Performance	DFT (μ)	Number of Coat
	★☆☆☆☆	★☆☆☆☆	★☆☆☆☆		★☆☆☆☆	20-25	1
	★★☆☆☆	★★☆☆☆	★★☆☆☆		★★☆☆☆	22-27	2
	★★★☆☆	★★★☆☆	★★★★☆		★★★☆☆	25-37	2 3
	★★★★☆	★★★★☆	★★★★★	★★★★☆	★★★★☆	35-44	3
	★★★★★	★★★★☆	★★★★★	★★★★☆	★★★★☆	30-40	2
	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	80-94	3 4
	★★★★☆	★★★★☆	★★★★☆		★★★★☆	40-52	2
	★★☆☆☆	★★☆☆☆	★★☆☆☆		★★☆☆☆	25-30	3

* DFT: Dry Film Thickness



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