


Beckers

Be inspired!

Beckry[®] DA

Domestic Appliance: White Goods





Beckers Group is a leading global supplier of coatings and the premier supplier of coil coatings in Europe. Beckers' international organization ensures global coordination and consistent product standards.

The Domestic Appliance Market:

The mature Domestic Appliance market is characterized by very high levels of ownership focused on replacement. At the same time lifestyles are becoming busier, thereby increasing the demand for household appliances that simplify everyday chores. The rise in disposable income in emerging markets has also boosted demand for new household appliances to improve the domestic environment.

What does the consumer want?

Increased sophistication makes consumers look to upper-price segments where aesthetics are just as important as functionality. Today, consumers are focused on visuality and tactility.

What can we offer?

Structured – Orange Peel – Smooth – Embossed!
We keep track of what consumers are looking for. The Domestic Appliance team at Beckers are always leading

new developments within the coatings industry. Our Beckry®DA range of coatings are designed to provide the optimum properties for each type of White Goods application – refrigeration, home laundry and cooking. Beckry®DA ensures consistency in quality and high aesthetic appeal. The coatings also give excellent performance after embossing. Without doubt the performance of domestic appliance coatings must be outstanding and at Beckers we are confident that the Beckry®DA range will meet the strictest demands of our customers. To further serve our customers we also supply backing coats tailored for Domestic Appliance applications.

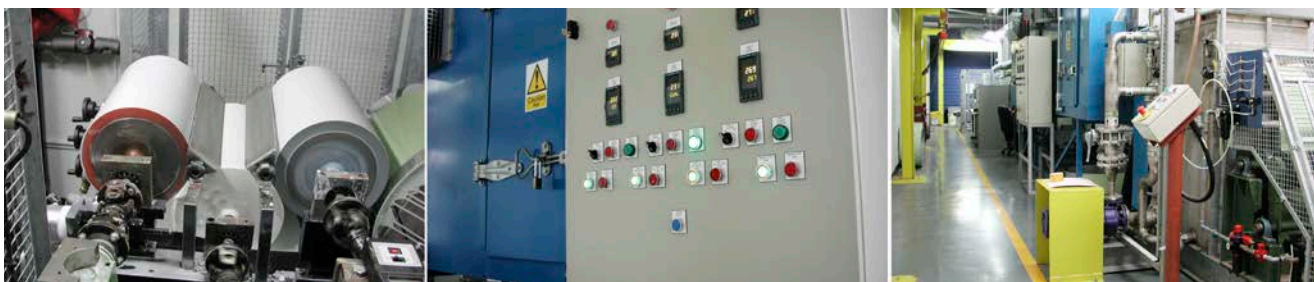
About Beckers Group:

A privately owned global industrial coatings company, Beckers Group is active in two business segments – Coil Coatings and Industrial Coatings – with operations at 24 locations in 19 countries.

Beckers is focused on developing sustainable coatings and processes – our vision is to become the most sustainable industrial coatings company in the world. Our business requires a foundation of profound scientific knowledge to develop our products and we are collaborating with The Natural Step to support our strategic planning.

Our six global sustainability focus areas

Our business is about aesthetic and durable coatings, striving for a palette of colours that serves society in multiple functions. We have developed our global sustainability palette – our focus areas to help ensure survival of the planet and of society.



Beckers has developed Domestic Appliance coatings using **bio-sourced** raw materials. The coatings include a significant proportion of **bio-based** material without sacrificing the performance of the coating.

These first generation of **bio-based** Domestic Appliance coatings are now available for OEM¹ assessment, please contact your local Beckers representative to discuss your requirements.

Beckers continues to invest further in the research and development of these types of coatings, with the aims of both increasing the **bio-sourced** content and introducing renewable/recycled raw materials. This will contribute to our stated aim of a sustainable future for coatings.

The recyclability of pre-painted steel is easier as no hazardous materials are involved. Effluents produced during the coating process are free from harmful chromate containing chemicals and thus need less intensive treatment before discharge. All coatings produced by Beckers for Domestic Appliances are ROHS² and WEEE³ compliant.

Beckers has invested in a pilot coating line in order to test new coating formulations under exact coating line conditions. This facility helps us ensure that the quality of finish demanded by the Domestic Appliance market is achieved by the coatings we develop.

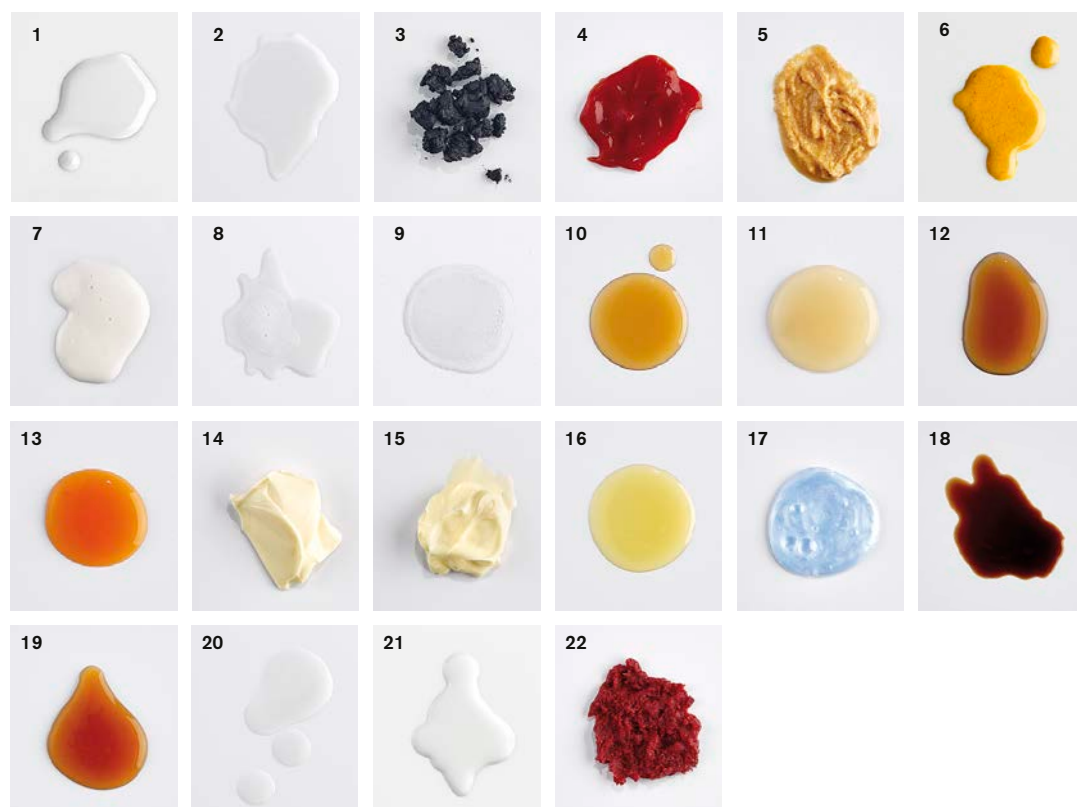
1) OEM – Original Equipment Manufacturer.

2) ROHS – Restriction of use of certain Hazardous Substances (Directive 2011/65/EC)

3) WEEE – Waste Electrical and Electronic Equipment (Directive 2012/19/EC).

Stain tests as Applied

Stain test	
1	8% Aqueous Citric Acid
2	8% Aqueous Acetic Acid
3	Black Boot Polish
4	Tomato Sauce
5	Mustard
6	Turmeric 0.5% Alcoholic Solution
7	Mr Sheen Cleaner
8	Dettox Cleaner
9	Fly Spray
10	Mobil Vactra Oil
11	Lemon Juice
12	Cola
13	Carrot Juice
14	Butter
15	Margarine
16	Olive Oil
17	Liquid Soap
18	Coffee
19	Tea
20	Vegetable Oil
21	Lactic Acid
22	Tomato Puree

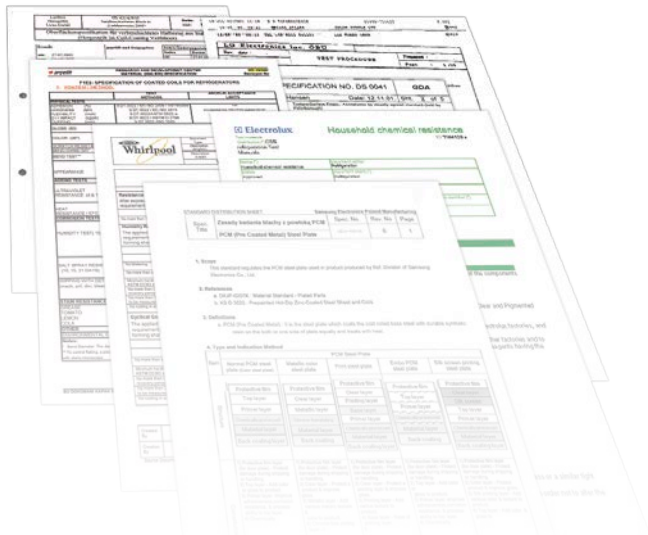


After removal

Following 72 hours at room temperature



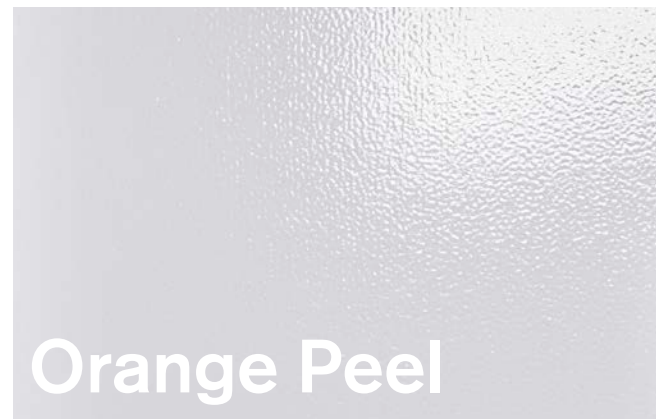
Beckers EU Domestic Appliance Test Method



ALL MAJOR OEMs have strict design requirements that have to be met by the coil coaters who deliver products to them. Some of the most stringent requirements relate to the performance of the coatings themselves.

Typically this will involve subjecting the coatings to contact or immersion in a multitude of foodstuffs, chemicals and cleaning agents that may be encountered in the home. In addition, the coatings have to achieve certain minimum standards of performance with respect to their mechanical properties (hardness, scratch resistance and formability) as well as providing corrosion protection to the substrate. At Beckers we have taken the most demanding tests found among the various European OEMs specifications and built our own, all encompassing, test method. Our so-called EUDA test programme is unique and ensures that coatings developed by us will meet the requirements of every OEM.

Furthermore we can provide on request, certificates of inertia's examination of our products intended to come into contact with foodstuffs, where overall migration is within limits set by regulations.



Orange Peel

The two coat **ORANGE PEEL** system has been developed to produce the effect that mimics post paint or powder, with the consistency achieved by coil coating.

The unique structure in the primer along with the smooth finish of the topcoat gives a durable coating suitable for an extensive range of appliance applications. This system is available in a wide variety of structures and colours, including metallic finishes, in a range of gloss levels.

The **CO-LAMINATE** system offers the durability of a tough laminated finish coupled with the wide choice of colours that the coil coating process can provide.

Our CO-LAMINATE system is designed for bonding with PET film during the coil coating process itself. The resulting co-laminate system offers exceptional hardness and scratch resistance plus superior gloss and image clarity.



The **STRUCTURED** system has a tough textured finish that provides a hard-wearing durable surface.

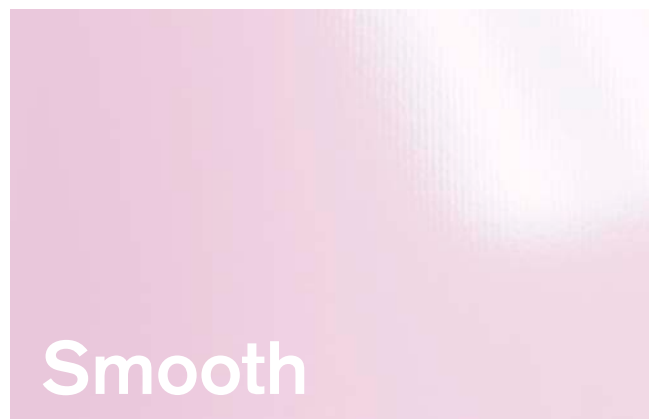
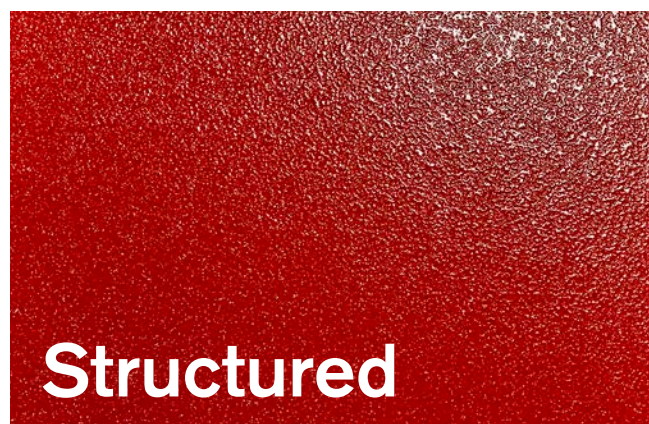
The two coat system can be formulated in a diverse colour range – utilising the basecoat as the main solid or metallic background, while the topcoat can be formulated as a clear, mica effect, lightly pigmented or metallic lacquer.

The **CLEAR ON BASE** system utilises a hard, flexible, clear topcoat specially formulated to work in conjunction with a variety of basecoats. The system gives metallic finishes and solid colours a strong smooth surface that enables the system to meet the demands of a range appliance uses.

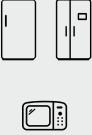


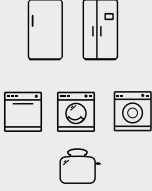
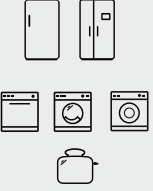
The CLEAR ON BASE system can be formulated in an extensive colour range, including solid colours, metallic, mica or pearlescent finishes as well as a full range of gloss levels whilst maintaining excellent performance characteristics.

The **SMOOTH** system has been developed to produce a smooth even surface that gives good image clarity. The smooth primer along with the smooth finish of the topcoat gives a durable finish suitable for a wide range of appliance applications.

The SMOOTH system can be formulated in an extensive colour range and is available in metallic, mica effect or pearlescent finishes as well as a full range of gloss levels, all of which maintain excellent performance characteristics.



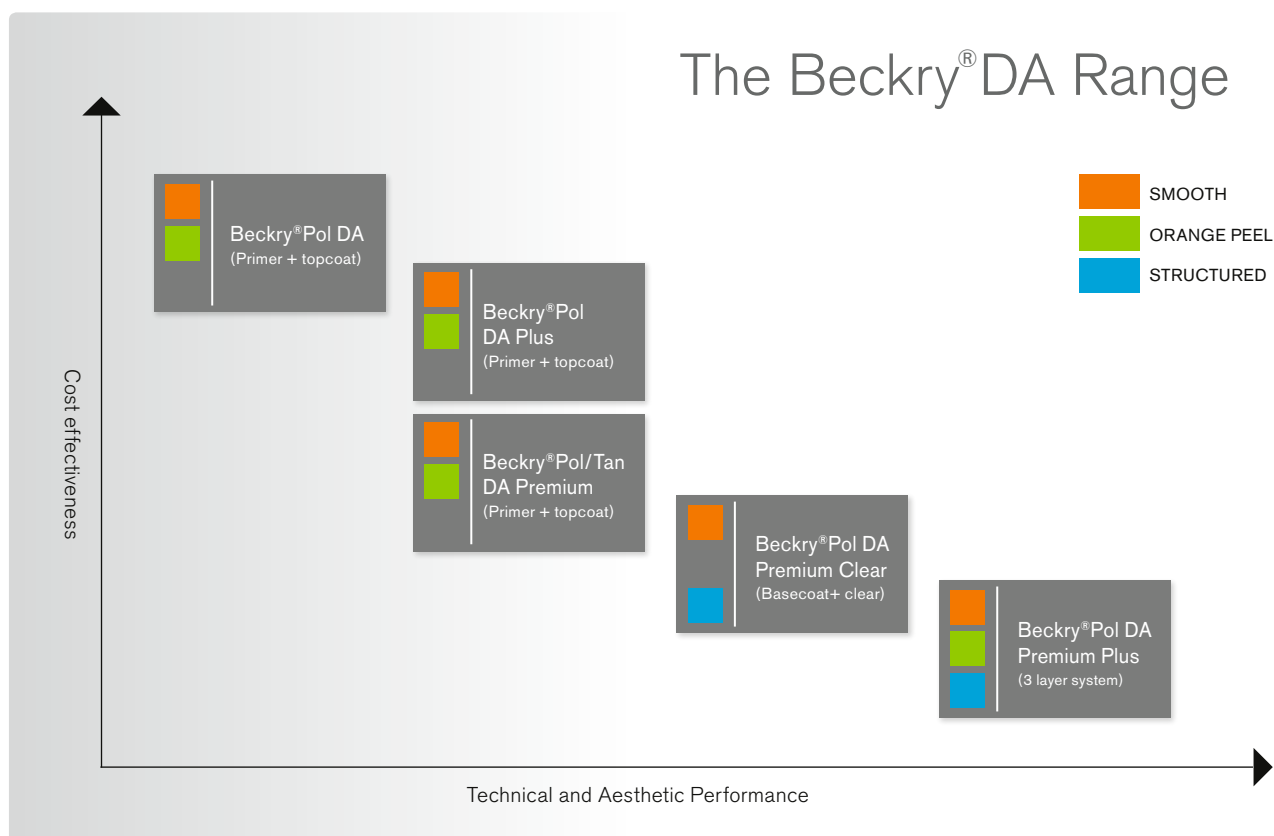
Technical specifications*

	Beckry®Pol DA	Beckry®Pol DA Plus	Beckry®Pol/Tan DA Premium	Beckry®Pol DA Premium Clear	Beckry®Pol DA Premium Plus
Thickness	17-25µm	25µm	25µm	25µm	30-45µm
Gloss range	40-80 GU	20-85GU	20-85 GU	5-95 GU	5-95 GU
Adhesion of the coating (T-bend)	≤ 2,0T	≤ 1,0T	≤ 0,5T	≤ 0,5T	0T
Resistance to cracking on bending (T-bend)	≤ 2,0T	≤ 2,0T	1,0-1,5T*	0,5T-1,0T*	0T-0,5T**
Salt spray resistance	150-240h	240h	240h	360h	360-500h
Stain resistance	–	+	+	++	++
Resistance to acids and bases	0	+	++	++	++
Resistance to detergent	0	0	++	+	++
Typical end-use					

* The indicated technical parameters are dependent on the substrate used, which can vary according to the producer of the coated material.

** Depending on gloss level.

The Beckry® DA Range



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Beyond The Surface

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