To achieve a good finish, it is essential to have a good start.
Almost half a century showing the depth of the surface
High added value coatings

Replasa is a Coil Coating company specialised in high added value coatings.

This means that we distribute our products to leading brands in each sector; that quality is our trademark, opening the door for us to international markets and, lastly, something that every client, anywhere in the world, values: service understood not only as part of an agreement, but also as the basis of a long lasting and committed relationship.

Thanks to the experience acquired since 1968 in Coil Coating, Replasa offers solutions adapted to every client’s specific needs, focusing on technological innovation and continuous development of new coatings and finishes.
80% of our products are exported to the world’s main markets

Year established
1968

Activity
Coatings

No. of employees
60

Coating systems
Films: PVC, PP, TEDLAR (PVF), PET
Paints: Epoxi, Polyester, PVDF, PES

Substrates
Galvanised
Cold rolled
Electrogalvanised
Stainless
Aluminium
ECCS

Market brands
Acquaplate
Aluplate
Astraplate
Colorplate
Decorplate
Glossyplate
Inoxplate
Lamiplate
Metalplate
Starplate
Thermoplate

Yearly capacity (tons)
30,000

Coating line
Max. width: 1,600 mm.

Cross cutting line
Max. width: 1,500mm.
Max. length: 6,000mm.

Thickness
Steel:
Min. 0.2mm. | max. 1.5mm.
Aluminium:
Min. 0.5mm. | max. 2mm.

Coil weight
Max. 14 tons

Line speed
30 m/min.
Information that speaks for us

Our growth in international markets is the logical result of a search that started over ten years ago. This is only some of the data resulting from our dedication to quality, investment in R&D&i and marketing of our 11 products.

Sales by sector

- 41% White goods
- 28% Construction
- 9% Industrial and commercial cooling
- 9% Metallic doors
- 3% Naval
- 2% Metallic furniture
- 2% Lifts
- 1% Confectionery
- 5% Other

Sales by geographic area

- 32% Western Europe
- 27% Eastern and Central Europe
- 23% National market
- 12% North America and South America
- 3% Africa
- 3% Central-Eastern Asia

Turnover - Exports

<table>
<thead>
<tr>
<th>Year</th>
<th>Mill. €</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>25</td>
</tr>
<tr>
<td>2009</td>
<td>25</td>
</tr>
<tr>
<td>2010</td>
<td>30</td>
</tr>
<tr>
<td>2011</td>
<td>35</td>
</tr>
<tr>
<td>2012</td>
<td>40</td>
</tr>
<tr>
<td>2013</td>
<td>45</td>
</tr>
<tr>
<td>2014</td>
<td>50</td>
</tr>
</tbody>
</table>
There is one thing we have maintained from the very beginning: innovation
A coated finish is basically research in the chemical field. Innovation is not added value, but a fundamental raw material. Coating a building façade or a top-range metallic fridge door keeps us at the very top of innovation standards.

Regarding resources, our scope is the following:

· Two labs at our sites, so we can collaborate with our clients until the optimum point they desire is reached, and control the use of decreasingly dangerous materials and increasingly eco-efficient manufacturing processes.
· A lab pilot line.
· Accelerated ageing equipment (environmental test chambers, ovens, etc.).
· Simulation software to carry out destructive and non-destructive tests.

Our main research line focuses on:

· Functional and technical coatings (noise reduction, anti-vibration, etc.).
· Food-safe polymery, anti-stain and anti-microbe.
· PVC free films (eco-films), with customised designs for outdoors and indoors.
What does all this mean?
The importance we give to quality, service, commitment to the client, work safety and manufacturing process safety, and respect for the environment have resulted in achieving three certificates, the first of them received almost twenty years ago:

- ISO 9001 Quality Standard.
- Environmental Management Standard 14001.
- Health and Safety Management System according to OSHAS 18001.

Associations we belong to:
- ECCA European Coil Coating Association.
- MESTEEL Steel and Buyers in the Middle East.
- SIDEREX Spanish Association of Steelworks Exporters.
We understand our clients because we form part of their products
The important thing is not that the customer is loyal to the brand, but that the brand is loyal to the customer.

There are six questions that every client should ask before applying a coating to their design or product:

What materials are in the product? Which ones are they? How are they manufactured? How are they presented? How are they stored? How are they maintained?

Every time a client orders a product, these are the questions we try to answer as best as we can.

These answers are, in fact, what makes us different from our competitors.
# What materials are in our products?

<table>
<thead>
<tr>
<th>Concept</th>
<th>ALUMINIUM</th>
<th>STEEL</th>
<th>STAINLESS STEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Cold rolled</td>
<td>Galvanised</td>
</tr>
<tr>
<td>European Standard</td>
<td>EN 485-2</td>
<td>EN10130</td>
<td>N 10346</td>
</tr>
<tr>
<td>Material standard</td>
<td>AW-1050A H18</td>
<td>AW-3003 H16</td>
<td>DC01TDC05</td>
</tr>
<tr>
<td>Equivalence AA / ASTM / AISI</td>
<td>1050</td>
<td>3003</td>
<td>525_A (G/45 G/60)</td>
</tr>
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</table>

## MECHANICAL PROPERTIES

*\( R_e \) = Elastic limit (N/mm²)

<table>
<thead>
<tr>
<th>*( R_e )</th>
<th>Thickness</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;120</td>
<td>&gt;120</td>
<td>&gt;120</td>
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<tr>
<td>&gt;150</td>
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<td>&gt;150</td>
</tr>
<tr>
<td>140–280</td>
<td>140–280</td>
<td>140–280</td>
</tr>
<tr>
<td>&gt;140</td>
<td>&gt;140</td>
<td>&gt;140</td>
</tr>
<tr>
<td>260</td>
<td>260</td>
<td>260</td>
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<td>230</td>
<td>230</td>
</tr>
<tr>
<td>240</td>
<td>240</td>
<td>240</td>
</tr>
</tbody>
</table>

*\( R_m \) = Traction resistance (N/mm²)

<table>
<thead>
<tr>
<th>*( R_m )</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;140</td>
<td>170–210</td>
</tr>
<tr>
<td>270–410</td>
<td>270–500</td>
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<td>270–410</td>
<td>270–500</td>
</tr>
<tr>
<td>450–600</td>
<td>540–750</td>
</tr>
<tr>
<td>530–680</td>
<td></td>
</tr>
</tbody>
</table>

*\( \Delta L \) = Lengthening (%)

<table>
<thead>
<tr>
<th>*( \Delta L )</th>
<th>Thickness</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;24</td>
<td>&gt;24</td>
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</tr>
<tr>
<td>&gt;28</td>
<td>&gt;28</td>
<td>&gt;28</td>
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</tbody>
</table>

Max. hardness (HB)

<table>
<thead>
<tr>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>42</td>
</tr>
<tr>
<td>54</td>
</tr>
<tr>
<td>180</td>
</tr>
<tr>
<td>190</td>
</tr>
<tr>
<td>200</td>
</tr>
</tbody>
</table>

Surface treatment

The sheet is received flat under stress, skinpassed, oiled and without chromate. The chemical treatment is carried out in **Replasa**.

## STANDARD MATERIAL CHEMICAL COMPOSITION

<table>
<thead>
<tr>
<th>*Iron (%)</th>
<th>0.40</th>
<th>0.70</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Steel (%)</td>
<td>99.50</td>
<td>Rest</td>
</tr>
<tr>
<td>*Carbon (%)</td>
<td>0.12</td>
<td>0.12</td>
</tr>
<tr>
<td>*Phosphorus (%)</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>*Sulphur (%)</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>*Manganese (%)</td>
<td>0.05</td>
<td>1–1.50</td>
</tr>
<tr>
<td>*Silicon (%)</td>
<td>0.25</td>
<td>0.60</td>
</tr>
<tr>
<td>*Copper (%)</td>
<td>0.05</td>
<td>0.05–0.20</td>
</tr>
<tr>
<td>*Magnesium (%)</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>*Zinc (%)</td>
<td>0.07</td>
<td>0.10</td>
</tr>
<tr>
<td>*Titanium (%)</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>*Chrome (%)</td>
<td>16.00–17.50</td>
<td>18.00–19.00</td>
</tr>
<tr>
<td>*Nickel (%)</td>
<td>0.85–1.00</td>
<td>0.85–1.00</td>
</tr>
<tr>
<td>*Molybdenum (%)</td>
<td>0.05</td>
<td>0.05</td>
</tr>
</tbody>
</table>

The sheet is received flat under stress. The chemical treatment is carried out in **Replasa**.
What are our products?

We design and manufacture 11 products for application in the main industrial sectors.

**Aluplate**
White goods

**Colorplate**
Metallic door / Naval / Construction / Air conditioning / Facings and enclosures / White goods / Cold chambers / Sandwich panels

**Metalplate**
Clean chambers / Antibacterial panels / Constructions
Automotive / Lifts

**Inoxplate**
White goods / Top-range white goods / Lifts

**Decorplate**
Metallic doors / Naval / Construction / Air conditioning

**Lamiplate**
Air conditioning / Facings and enclosures / White goods / Cold chambers
Sandwich panels

**Astraplate**
White goods

**Starplate**
White goods / Construction

**Acquaplate**
Construction

**Glossyplate**
White goods

**Thermoplate**
Industrial confectionery
Metal + Film

Description
Ideal for decorative purposes. Film coated metal with Coil Coating technology. Wide variety of designs and cosmetic finishes, as per client’s demand. Excellent adherence to metal and good flexibility. Suitable for industrial applications.

Composition
- Protective film (optional)
- Film coating
- Adhesive
- Chemical treatment
- Metallic substrate
- Chemical treatment
- Back primer (optional)

Sectors
- Metallic door
- Naval fitting out
- Construction
- White goods
- Air conditioning
Metal + paint

Description
Available in a wide variety of colours, it offers better protection against corrosion. Suitable for interior and exterior application, excellent durability.

Composition
- Protective film (optional)
- Film coating
- Primer
- Chemical treatment
- Metallic substrate
- Chemical treatment
- Back primer (optional)

Sectors
- Roofs and enclosures
- White goods
- Cold chambers
- Sandwich panel
- Air conditioning
Metal + non-stick

Description

Easy Clean and PES coatings based on Coil Coating technology. The non-stick material meets the sanitary standards and is abrasion resistant.

Composition

- Superior anti-adherent
- Primer
- Metallic substrate
- Exterior coating

Sectors

- Household baking moulds
- Industrial confectionery moulds
- Oven trays
Inox + easyclean

Description
Inoxplate is an easily cleaned high-end coating, fingerprint resistant, antibacterial and with greater resistance to corrosion. Products with high added value, with a wide range of aesthetically-pleasing finishes using Coil Coating technology.

Composition
- Protective film (optional)
- Anti-fingerprint coating
- Chemical treatment
- Stainless steel
- Chemical treatment
- Back primer (optional)

Sectors
- High-end household appliances
- Lifts
- Cleanrooms
- Antibacterial panels
- Construction
New products

Description
In the last few years, traditional sectors have been joined by new markets where our products can be a perfect component. From the manufacture of white goods to panels for large architectural projects. Experience and innovation have been fundamental when entering new emerging markets. As it is a high quality, resistant, customisable and globalised product, we think it is important to introduce it to new customers in order to adapt to their needs and expand our market. Because we are sure that the future of our products lies in offering them for new applications that will benefit from all these advantages.

Sectors
- Automotive
- Lifts
- Construction
- White goods
Today's utopias will be tomorrow's projects
How do we manufacture our products?

The colour that invades the world

Coil Coating is an automated process in which a metallic coil is placed at the beginning of a coating line and, in a continuous process, it unwinds, cleans, is pretreated, primed and coated.

**How can a quality product be achieved?**

The important thing is that the combination of materials and adherence process meet the highest quality standards to guarantee an excellent final product. This process is developed in 4 phases, following the European environmental protocols.

**First phase:** cleaning or washing of the substrate material so it enters the process in optimum cleanliness and purity conditions, undergoing a chemical treatment to prepare it to start the second phase: assembly.

**Second phase:** Coil Coating or assembly is where the metallic substrate and the coating join. It is a complex production and technological process where chemical treatments, rolls, ovens, refrigerators and several material and human means are involved.

**Third phase:** collection of the finished product, it is analysed, measured and goes through quality control, protecting it with a film and collecting it.

**What are our sheets for?**

Our pre-coated sheets can be used in a variety of sectors, such as construction, transport and white goods.
CONSTRUCTION: this is the sector where it is mostly used because of its flexibility, durability and weather and UV resistance. In homes, it is used in ceilings and enclosures, but it is mostly used in the industrial sector: magnificent stadiums, airports, buildings and sport centres, among others, have been created.

TRANSPORT: pre-coated steel allows designers to create models with a great variety of colours and shapes for light bodywork construction and for part and component substitutions in vehicles (doors, oil filters, wipers, etc.). It is also used in motorcycles, lorries, tankers and trains.

TOP-RANGE AND MEDIUM RANGE WHITE GOODS: its aesthetic and mechanical properties, hardness, excellent flexibility and resistance to abrasion make this sheet suitable for lots of different applications in the industry.

GENERAL INDUSTRY: the pre-coated sheets are used specially in the office or commercial furniture sector, such as filing cabinets, shelves and cupboards, food containers, toilet containers, air conditioning equipment, traffic signs, doors, etc.

Chemistry at the service of the environment
Besides its environmental properties, as 95% of pre-coated steels can be recycled several times after their useful life (cars, white goods, etc.), this coating process is considered one of the most respectful towards the environment, as it captures through filters 98% of the generated volatile organic components that are turned into fuel.
How do we present it?

Tell us how, how much and when you need it and we will make it, package it and send it to you.

We can send you our product by different means. But if we need to adapt to any other dimension, we will show you how flexible we are regarding this.

How are they stored?

When storing products, it is necessary to take into account some precautions:

Wet storage stain takes place during storing and it accelerates in the presence of dampness and condensation. When the sheet is exposed to air, the surface can get rusty and a very thin oxide film can be formed.

There is an easy solution to this:
  • Store in a closed and dry area, away from outdoor water and dampness.
  • The area temperature must be higher than the dew point to avoid condensation.
  • Stack the product so the sheet is not in contact with the floor.

Storage in exceptional cases:
  If the product needs to be stored outdoors in the open air, the following precautions need to be taken into account:
  • Install a structure above the coil that holds a canvas covering it, leaving enough space between the canvas and the coil to allow air circulation.
  • Again, make sure the sheets do not touch the floor to avoid condensation due to water evaporating from the floor.
  • Install the stack slightly inclined so the water that might have penetrated can get out.
  • Make sure there is no dampness.
Packaging means

- Longitudinal strips
- Transverse strips
- Plastic wrapping
- Protection
- Cross-piece
- Reinforcing corner
- Identification label
- Packing list
- Transoms

- Exterior reinforcing corner
- Radial strips
- Identification label
- Packing list
- Transverse strips
- Plastic wrapping
- Interior reinforcing corner
- Wooden wedge

- Radial strips
- Identification label
- Protective PVC film
- Packing list
- Cross-piece
- Transoms
How are they maintained?

One characteristic of a good coating is that it resists everything: weather, salitre, extreme heat, use and stains.

A well-finished product is not useful if its quality is not apparent over time. When we think about maintenance, we make a difference between normal maintenance, cleanliness and elimination of certain stains, and scratches caused by friction.

This is how we work to not leave any trace behind

In general, coated film and lacquered products have high resistance and impermeability to stains. Most solid and liquid food are easily cleaned, but are not resistant to solvents such as acetone, benzene, butanone, toluene, etc. which produce attack and discolouration.

Normal maintenance

Household detergents
Normal cleaning detergents can be used for a durable maintenance. If blackish stains appear, applying a sodium carbonate aqueous solution, soap and a small amount of ammonia (or, preferably, methyl alcohol) can offer good results. Stainless type finishes will be cleaned using neutral household detergents with a cotton cloth and avoiding the use of abrasive wipes that can damage the surface.

Scratches
Scratches on the film can be covered by applying paste with a scraper.

Shines
Shines on the film can be eliminated by temperature, not going over 100°C, whether by hot air pistol, sun exposure or near a stove.

Restoration with paint
It is possible to carry out small paint repairs in the sheet after previously cleaning the surface gently applying a special prime following the specific paint manufacturers’ recommendations.

Cleaning and elimination of stains in the film
Water-insoluble product stains on film
Certain water-insoluble products (nail varnish, lipstick, polish, ink, etc.) can be cleaned with an organic solvent if action is taken quickly. If not, they can penetrate the film surface leaving a permanent stain.

Grease stains
Grease stains, such as oil, tar, etc. can be cleaned with neutral cleaners without ammonia, or with alcohol and petrol mixture and a damp cloth.

Oxide stains
Oxide stains can be cleaned using a 10% oxalic acid solution. When the agent producing the stain has penetrated the film, it is necessary to use more abrasive detergents (VIM, AJAX, etc.).
Acquaplate
Aluplate
Astraplate
Colorplate
Decorplate
Glossyplate
Inoxplate
Lamiplate
Metalplate
Starplate
Thermoplate