RegrindPro®

The gentle way
to success in regrind recycling.
RegrindPro® – the gentle way to top quality

- Uncompromisingly gentle regrind processing for top recycled pellet quality
- The end products produced are convincing with top functional characteristics in terms of mechanical properties, surface quality, dyeability, smell, etc. and with a particularly high recycled pellet content

RegrindPro® – pure performance

- Remarkably high-performance filtration: the EREMA Laserfilter removes undesired impurities particularly effectively
- Considerably higher filtration efficiency compared to conventional single and twin screw systems

RegrindPro® – the universal machine

- Wide variety of regrind types under perfect control – without screw exchange, with consistently high capacities
- Very broad input bulk density range from 30 to 800 g/l – therefore ideally suitable for both regrind and other types of material such as film, sheet and nonwoven applications
- Save set-up costs, increase productivity: with the material all-rounder you remain as flexible as possible!

Input: regrind

Output: recycled pellets
Go the gentle way

Gentle processing and highly efficient filtration

Are you looking for the ultimate way of producing top reground particles from thick-walled reground? Fast and products with best performance properties and particularly high recyclate content? The new INTAREMA® RegrindPro® offers the ideal solution: extremely gentle processing in combination with high-performance filtration.

The innovative system unites all the benefits of the INTAREMA® plant generation such as the top technologies Counter Current, Smart Start and selfAAM®, which set the standard in production efficiency in plastics recycling.

The universal machine.
This is how you stay flexible.

One single machine which turns a wide variety of reground types into high-quality recycled pellets - thanks to the efficient filtration, warming through of the input material in the preconditioning unit and a particularly gentle universal screw. It ingeniously processes an extremely wide range of polymers with different melting points and energy contents.

As a result you change very quickly between PE, PP, ABS, PS and other reground types - without exchanging screw elements; there are no complications in terms of throughput and quality. This is flexibility that leaves your set-up costs and increases your productivity!

Your flexibility bonus: thanks to the extremely broad input bulk density range of 30 to 800 g/l the system is ideally suitable for both reground and other types of material such as films, sheet and nonwoven applications.

The high-performance machine is thus the absolute material all-rounder. Highly flexible, strong performance and energy-saving. And extremely easy to operate.

Top values for RegrindPro®: Comparison of reground recycling systems

<table>
<thead>
<tr>
<th></th>
<th>INTAREMA® RegrindPro®</th>
<th>Twin screw system A</th>
<th>Single screw system B</th>
<th>Single screw system C</th>
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</thead>
<tbody>
<tr>
<td>Nonconformity area [ppm]</td>
<td>100</td>
<td>1100</td>
<td>1200</td>
<td>1300</td>
</tr>
<tr>
<td>Nonconformity size [µm]</td>
<td>1500</td>
<td>1600</td>
<td>1800</td>
<td>1900</td>
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<tr>
<td>Test material: recycled pellets made from PP reground on various reground recycling systems (filtration: 140-180 /µm)</td>
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Preconditioning Unit

The gentle way begins in the preconditioning unit. It gives the thick-walled reground particles what they need to be warmed homogeneously. This is made possible by a slower turning of the rotor disc with a higher filling level at the same time. Consequently even high moisture disappears and the reground is perfectly prepared for the reticulation.

Addition bonus: Allen such as CaCO₃, are distributed homogeneously thanks to the longer residence time and high filling level.

Gentle melting

Thanks to the preconditioning unit the extruder is fed warm instead of cold. The advantage over conventional systems; a short extruder screw is enough to melt the already dry and thoroughly warmed reground particles. The screw drive is extremely low as a result while the melt quality is high.

High-performance filtration

Clean melt, pure performance: efficient filtering is one of the key strengths of the new RegrindPro®. Thanks to the gentle preparation in advance the INTAREMA® high-performance Laserfilter has an easy time. Dirt particles and impurities such as silicones are hardly retained in size before and are therefore large enough for them to be easily removed from the melt.

The early removal of undesired materials means that the melt is longer outgas and no unpleasant smells develop - a decisive quality bonus for the melt.

Highly efficient triple degassing

The final homogenisation of the melt downstream of filtration and optimum of degassing enhances the subsequent degassing performance and improves the characteristics of the melt.

The melt is now clean, homogenised and perfectly degassed. And thus ready for pelletising.

Perfect homogenisation

The melt downstream of filtration and optimum of degassing is still cold and cloudy. The advantage over conventional systems; a short extruder screw is enough to melt the already dry and thoroughly warmed reground particles. The screw drive is extremely low as a result while the melt quality is high.

The melt is now clean, homogenised and perfectly degassed. And thus ready for pelletising.
The RegrindPro® configuration is available for the following system types:

**INTAREMA® T, TE and TVEplus® plus COREMA®**

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**More questions?**
We would be pleased to answer them!
Your EREMA advisor will be pleased to attend to your request personally and quickly. If you are interested in a demonstration or a test run with your specific material it would be a pleasure for us to make an appointment and welcome you to our EREMA Customer Centre at the headquarters in Ansfelden, near Linz in Austria.

We look forward to seeing you at EREMA!

**For worldwide representatives please visit www.erema.at**

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