

IN A WORD OF POSSIBILITIES MAKE THE EXACT CHOICE

OFFERING SOLUTIONS FOR THE PLASTIC INDUSTRY SINCE 1974

With over **45 years of experience,** EXACT is amongst the world leaders in the production of auxiliary machines for the Plastic Industry.

From their Granulators to Polyamide Grits, **EXACT** products promise results.

Research, development and endless attention to detail have made EXACT a **world-renowned company** known for quality and assurance of its solutions.

A FAMILY NOT JUST A COMPANY

Exact has been offering customized Plastic Film Recycling Solutions for over forty years. A mission carried forward by **three family generations** in an effort to guarantee reliability, quality and precision, to all customers who over the years, have decided to rely on us to achieve their recycling needs.

We are a family comprised of people, collaborators and technical partners who have made our reality unique: a close partnership between the **high professionalism** of a specialized company, and the **familiarity** you want to find in a true trusted business partner.

INVENTORS BY TRADITION INNOVATOR BY PASSION

Development and Research are engrained in our genetics. It is because of these attributes that the original development of EXACT recovery systems came to be. These traits have been the driving force with which we have perceived, with decades of anticipation, a need to compete in the plastics market. Everyday we compare ourselves with our competitive partners and we try to imagine answers to questions that have not yet arisen. Leading us, is our inexhaustible desire to provide products that are **increasingly efficient, reliable and easy to use** in order to respond to increasingly complex challenges before our competitors.





WELCOME TO EXACT WELCOME TO A WORLD OF SERVICES

From the first cognitive planning stages to our after-sales assistance, you will never be left alone: this is the real added value of our customer care.

Thanks to a highly dedicated network of personnel and a series of structured processes that we typically customize according to individual client needs, we guarantee maximum results with the added value of personalized customer care.

OUR SERVICES



MATERIALS TEST BLIND PURCHASE. NOT WITH EXACT

EXACT offers free material recovery trials: our technicians will process your film to establish which machinery and set-up is optimal for your specific needs.



SALE? THE CHOICE IS YOURS. NEW, USED OR RENT WITH REDEMPTION.

Different purchasing methods, one result: becoming the owner of the famed EXACT system has never been so simple.



PERSONALIZED SOLUTIONS YOUR EXACT: A UNIQUE PRODUCT, LIKE YOU

All our machines are always customized according to your needs to offer you the certainty of achieving your goals.



TECHNICAL ASSISTANCE PROBLEM? SOLVED

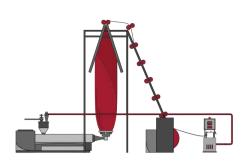
The exclusive and dedicated customer relationship you expect, combined with the needs of a global market: with EXACT you will never be alone, wherever you are.



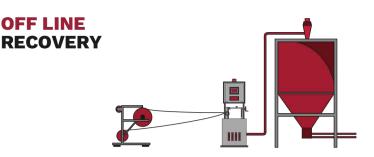
SPARE PARTS SERVICE MAINTENANCE FOR A LONG LIFE

We manufacture the basic components of our machinery from raw materials to ensure the availability of spare parts even for older models. Goodbye to technological senescence.





EXACT granulators are designed to operate in a continuous cycle, recovering edge trim directly from the film producing line, eliminating any risk of contamination due to the storage of the material. The granulator transforms the edge trim into granules which are immediately returned to the extruder Hopper and dosed together with the virgin granule.



Exact granulators possess all the technology and strength necessary for the recovery of waste reels of any width and/or diameter.

Thanks to Slitter cutting blades, and EXACT's customized Unwinding Stands it is possible to recover film reels in sectors.



COLD SYSTEM GANULATOR MACHINES THE ORIGINAL EXACT TRADEMARK FOR EDGE TRIM RECOVERY

EXACT originated almost half a century ago, after designing and **developing a new edge trim recovery system.** The intuition was precise: through a calibrated extraction, compression and cutting process it was possible to regranulate edge trimmings of thermoplastic film **without waste,** and without alternating the film's fundamental properties. The end result? A simple to use machine with an extensive utility potential.

With 45 years of continued improvements and success, EXACT graulators have been launched in over 8000 plants worldwide; daily proof of the **extraordinary effectiveness** of our original intuition.

TOP FEATURES



HOT SYSTEM GRANULATOR MACHINES A SYNTHESIS OF THE OPPOSITE

After years of perfecting its Cold Technology Systems, EXACT **completes its range of machinery** by finally offering its Hot Granulator Systems. The common extrusion processes are reinterpreted and improved by our decades of experience in the field of thermoplastic film trim recovery, to guarantee the **renowned EXACT precision** even in thermal transformation processes.

TOP FEATURES

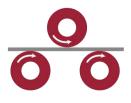


APPLICATIONS



BLOWN FILMS

Thanks to External Synchronism, EXACT granulators regulate the speed of recovery to work in perfect harmony with any extrusion plant



CAST SYSTEM EXACT granulators work perfectly even with Flat Die extrusion lines



WASTE REELS EXACT has all the technology available to recover Off-Line reels of any type of material.



R6 JUMBO

SMALL AND EFFICIENT

Possesses all the features of its larger sister models, yet despite being the smallest of the Cold System Granulators, still provides synchronism with production line speeds and boasts both EXACT signature compression and cutting groups. Its special construction features make the Jumbo model the perfect solution when working In Line with Raffia or High-Density Films, in production plants with low speeds.

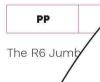
TECHNICAL FEATURES

WORK SPEED	up to 60 m/min
HOURLY PRODUCTION RATE	up to 60 kg/h
MAIN MOTOR	from 4 kW
CUTTER WHEEL DIAMETER	180 mm
STANDARD CUTTER WHEEL	from 18 blades; available in versions from 24 and 30 blades
PRESSURE BUSHES	from 66 mm diameter
BUSHING	sizes available PDP 1,5/2/2,5 mm
OMRON OPERATOR	interactive color Touch Screen 7.5"



TREATED MATERIALS

Suitable for the recove



COLD SYSTEM GANULATOR MACHINES

HOT SYSTEM GANULATOR MACHINES



CUTTERS



TOWING SYSTEM





MICROPERFORATORS



AUXILIARIES



STRONG FIBER



EXADUR



R6 JUMBO

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OMRON OPERATOR	interactive color Touch Screen 7.5"



TREATED MATERIALS

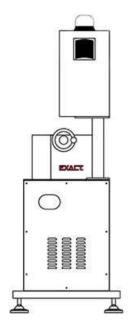
Suitable for the recovery of films containing mixtures of:

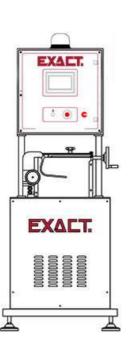
PP	PE	HD	PVC
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The R6 Jumbo is also capable of recyling packaging straps and Raffia.



WEIGHT AND DIMENSIONS





NET WEIGHT (kg): 340 **WIDHT (mm):** 750

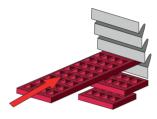
DEPTH (mm): 650 HEIGHT (mm): 2000

HOW IT WORKS



EXTRACTION

Thanks to an Infeed Device and Dancer, the edge trims arrives at a constant speed at the entrance of the Granulator. Conveyor guides then insure correct feeding of the machine.



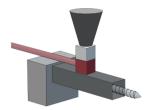
CUT

The Cutter Wheel divides the webbing into the characterisitic Exact Chip, a regranulate of high specific weight that has not undergone transformations due to secondary thermal processes.



COMPRESSION

The trimmings enter the machine and are compressed by special Bushes with a diamond profile. The trimmings are transformed into a semi-rigid web.

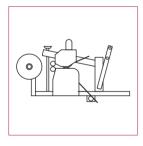


RECOVERY

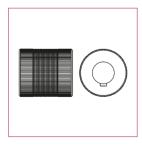
The Exact Chip can be stored or put back directly into the extrusion process, eliminating the waste material.

ACCESSORIES

INFEED DEVICE



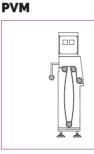
COMPRESSION GROUP



EXTERNAL SYNCHRONISM

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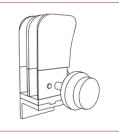
DANCER



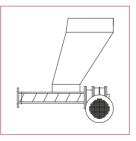
INTERNAL SYNCHRONISM



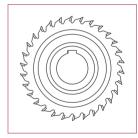
CONVEYORS



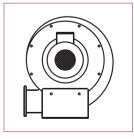
FORCED FEEDERS



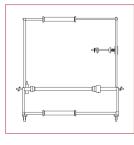
CUTTING GROUP



TRANSPORTING GRANULES



UNWINDING STANDS





R6 GOLD PERFECT FOR STRETCH FILM

A granulator with competitive performance capable of handling higher speeds than its sister Jumbo model, and a medium content workload. **The heart of the unit is the compression and cutting zones, with the characteristic elongated shape** that make the R6 Gold the **perfect solution for the recovery of all films** that tend to over-stretch during the compression phase.

TECHNICAL FEATURES

WORK SPEED	up to 100 m/min
HOURLY PRODUCTION RATE	up to 80 kg/h
MAIN MOTOR	from 4 kW
CUTTER WHEEL DIAMETER	180 mm
STANDARD CUTTER WHEEL	from 18 blades; available in versions from 24 and 30 blades
PRESSURE BUSHES	from 66 mm diameter
BUSHING	sizes available PDP 1,5/2/2,5 mm
OMRON OPERATOR	interactive color Touch Screen 7.5"



TREATED MATERIALS

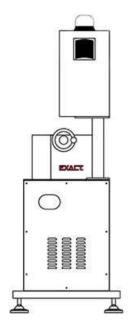
Suitable for the recovery of films containing mixtures of:

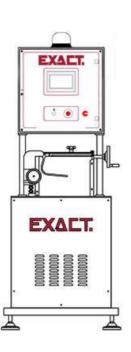
PA	PC	PE	HDPE	LDPE	LLDPE	mLLDPE	PES	PFA	PLA
РММА	PP	PPS	PVC	РVОН	PEEK	FEP	EVA	EVAL	EHPP
EVOH	СРР	BOPP	BOPET		·				

The R6 Gold is also able to recover Mono or Multilayer films, strapping for packaging, Mater-Bi and BIO film.



WEIGHT AND DIMENSIONS





NET WEIGHT (kg): 360 WIDHT (mm): 750

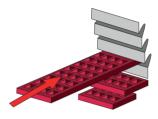
DEPTH (mm): 650 HEIGHT (mm): 2000

HOWIT WORKS



EXTRACTION

Thanks to an Infeed Device and Dancer, the edge trims arrives at a constant speed at the entrance of the Granulator. Conveyor guides then insure correct feeding of the machine.



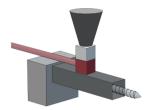
CUT

The Cutter Wheel divides the webbing into the characterisitic Exact Chip, a regranulate of high specific weight that has not undergone transformations due to secondary thermal processes.



COMPRESSION

The trimmings enter the machine and are compressed by special Bushes with a diamond profile. The trimmings are transformed into a semi-rigid web.

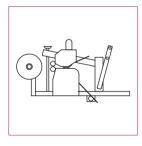


RECOVERY

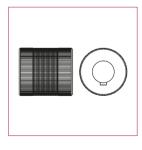
The Exact Chip can be stored or put back directly into the extrusion process, eliminating the waste material.

ACCESSORIES

INFEED DEVICE



COMPRESSION GROUP



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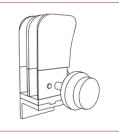
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DANCER

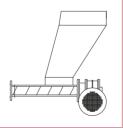
EXTERNAL SYNCHRONISM



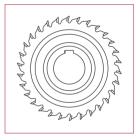
CONVEYORS



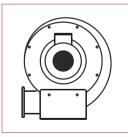
FORCED **FEEDERS**



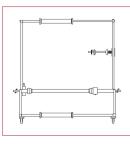
CUTTING GROUP



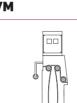
TRANSPORTING GRANULES



UNWINDING **STANDS**



PVM



INTERNAL **SYNCHRONISM**





EVOLUTION 10

THE MOST VERSATILE GRANULATOR

Offers optimal management of **medium thickness films and high speeds**: characteristics that are found in most materials produced by film manufacturers. Thanks to its technical specifications, and an extraordinary ability to work in-line, the **Evolution 10 is the most versatile granulator in the Cold System family**. The perfect choice for those who often change types of production and do not want recovery compromises.



TECHNICAL FEATURES

WORK SPEED	up to 150-200 m/min
HOURLY PRODUCTION RATE	up to 150 kg/h
MAIN MOTOR	from 7,5 kW
CUTTER WHEEL DIAMETER	180 mm
STANDARD CUTTER WHEEL	from 18 blades; available in versions from 24 and 30 blades
PRESSURE BUSHES	from 88 mm diameter
BUSHING	sizes available PDP mm1,5/2/2,5/3 mm
OMRON OPERATOR	interactive color Touch Screen 7.5"

TREATED MATERIALS

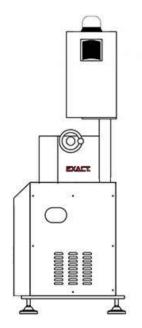
Suitable for the recovery of films containing mixtures of:

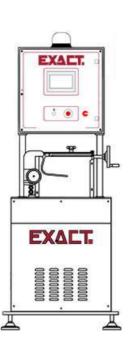
PA	PC	PE	HDPE	LDPE	LLDPE	mLLDPE	PFA	PLA	РММА
РР	PPS	PS	PTFE	РVОН	FEP	EVA	EVAL	EHPP	EVOH
СРР	PEEK	PES	PET	PU	PVC	BOPP	BOPET		

This unit can also successfully treat Mono or Multilayer films, Bi-oriented films, Bubble wrap, films containing mixtures of Calcium Carbonate and Titanium Dioxide, strapping for packaging, non-woven fabric, irrigation tubing, Raffia, Mater-Bi, BIO film and many other films with origins protected by trade secrets.



WEIGHT AND DIMENSIONS



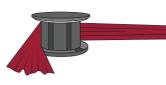


NET WIEGHT (kg): 550 WIDHT (mm): 830

DEPTH (mm): 840 HEIGHT (mm): 2160

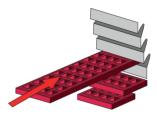
DANCER

HOWIT WORKS



EXTRACTION

Thanks to an Infeed Device and Dancer, the edge trims arrives at a constant speed at the entrance of the Granulator. Conveyor guides then insure correct feeding of the machine.



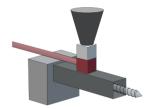
CUT

The Cutter Wheel divides the webbing into the characterisitic Exact Chip, a regranulate of high specific weight that has not undergone transformations due to secondary thermal processes.



COMPRESSION

The trimmings enter the machine and are compressed by special Bushes with a diamond profile. The trimmings are transformed into a semi-rigid web.

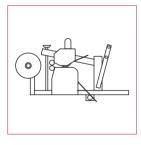


RECOVERY

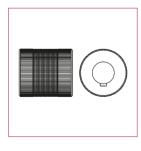
The Exact Chip can be stored or put back directly into the extrusion process, eliminating the waste material.

ACCESSORIES

INFEED DEVICE



COMPRESSION GROUP



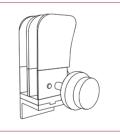
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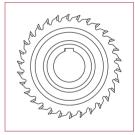
EXTERNAL SYNCHRONISM



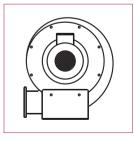
CONVEYORS



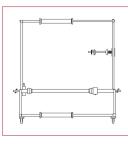
CUTTING GROUP



TRANSPORTING GRANULES



UNWINDING **STANDS**

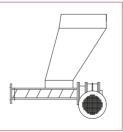




INTERNAL **SYNCHRONISM**



FORCED **FEEDERS**





CYKLOP 20 PERFECT FOR LARGE PRODUCTION LOADS

Developed to meet the needs of highly technical markets, the Cycklop 20 granulator machine is particularly **suitable for handling difficult materials such as non-woven fabrics, or very thick thermoplastic films** with atypical production speeds. This model has all the power needed to guarantee the best results even in **high-speed** film producing plants, and/or to recover off-line waste film reels ensuring a remarkable production rate in terms of kg/h.



TECHNICAL FEATURES

WORK SPEED	up to 200-250 m/min
HOURLY PRODUCTION RATE	up to 200-300 kg/h
MAIN MOTOR	from 15 kW
CUTTER WHEEL DIAMETER	200 mm
STANDARD CUTTER WHEEL	from 24 blades; available in versions from 30 and 36 blades
PRESSURE BUSHES	from 102 mm diameter
BUSHING	sizes available PDP 1,5/2/2,5/3 mm
OMRON OPERATOR	interactive color Touch Screen 7.5"

TREATED MATERIALS

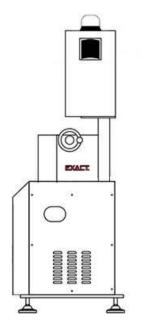
Suitable for the recovery of films containing mixtures of:

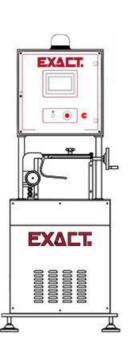
PA	PC	PE	HDPE	LDPE	LLDPE	mLLDPE	PFA	PLA	РММА
РР	PPS	PS	PTFE	РVОН	FEP	EVA	EVAL	EHPP	EVOH
СРР	PEEK	PES	PET	PU	PVC	BOPP	BOPET		

This model can also successfully treat Mono or Multilayer films, Bi-oriented films, Bubble wrap, films containing mixtures of Calcium Carbonate and Titanium Dioxide, strapping for packaging, non-woven fabric, irrigation tubing, Raffia, Mater-Bi, BIO film and many other films with origins protected by trade secrets.



WEIGHT AND DIMENSIONS





NET WEIGHT (kg): 680 **WIDHT (mm):** 830

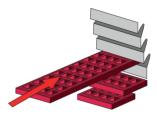
DEPTH (mm): 960 HEIGHT (mm): 2340

HOW IT WORKS



EXTRACTION

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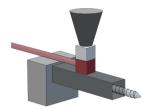
CUT

The Cutter Wheel divides the webbing into the characterisitic Exact Chip, a regranulate of high specific weight that has not undergone transformations due to secondary thermal processes.



COMPRESSION

The trimmings enter the machine and are compressed by special Bushes with a diamond profile. The trimmings are transformed into a semi-rigid web.

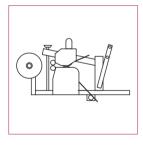


RECOVERY

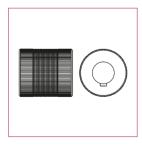
The Exact Chip can be stored or put back directly into the extrusion process, eliminating the waste material.

ACCESSORIES

INFEED DEVICE



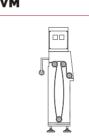
COMPRESSION GROUP



EXTERNAL SYNCHRONISM

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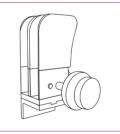
DANCER



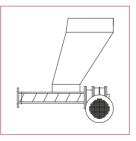
INTERNAL SYNCHRONISM



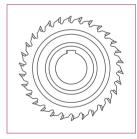
CONVEYORS



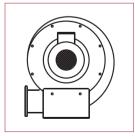
FORCED FEEDERS



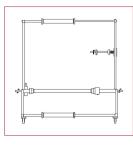
CUTTING GROUP



TRANSPORTING GRANULES



UNWINDING STANDS



PVM



CYKLOP 30 THE GRANULATORS FOR THE TOUGHTEST JOBS

The striking dimensions of its Pressure Bushes leave no room for doubt: the Cyklop 30 is the answer for those who need to recover **materials of very high thicknesses or who need to handle extremely fast line speeds**.

Even when used as an off-line recovery machine, the hourly production rates are quite impressive. The Cyklop 30 is capable of producing **up to 500 kg/h of recycled material**.

Thanks to its oversized dimensions, this granulator is also perfect for working on **CAST lines**: the neck, even if very thick, is easily recovered. In terms of performance and technology, the Cyklop 30 is the **flagship of EXACT's range of Cold System Granulators**.

TECHNICAL FEATURES

WORK SPEED	up to 300 mt/min
HOURLY PRODUCTION RATE	up to 300-500 kg/h
MAIN MOTOR	from 18,5 kW
CUTTER WHEEL DIAMETER	200 mm
STANDARD CUTTER WHEEL	from 24 blades; available in versions from 30 and 36 blades
PRESSURE BUSHES	from 152 mm diameter
BUSHING	sizes available PDP 2/2,5/3/4 mm
OMRON OPERATOR	interactive color Touch Screen 7.5"



TREATED MATERIALS

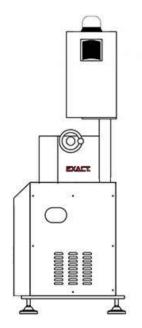
Suitable for the recovery of films containing mixtures of:

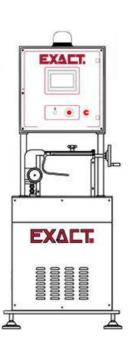
PA	PC	PE	HDPE	LDPE	LLDPE	mLLDPE	PFA	PLA	РММА
РР	PPS	PS	PTFE	РVОН	FEP	EVA	EVAL	EHPP	EVOH
СРР	PEEK	PES	PET	PU	PVC	BOPP	BOPET		

The Cyklop 30 can also successfully treat Mono or Multilayer films, Bi-oriented films, Bubble wrap, films containing mixtures of Calcium Carbonate and Titanium Dioxide, strapping for packaging, non-woven fabric, irrigation tubing, Raffia, Mater-Bi, BIO film and many other films with origins protected by trade secrets.



WEIGHT AND DIMENSIONS

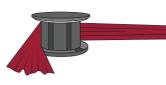




NET WEIGHT (kg): 730 WIDHT (mm): 880

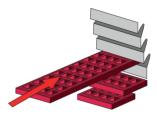
DEPTH (mm): 960 HEIGHT (mm): 2440

HOWIT WORKS



EXTRACTION

Thanks to an Infeed Device and Dancer, the edge trims arrives at a constant speed at the entrance of the Granulator. Conveyor guides then insure correct feeding of the machine.



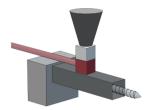
CUT

The Cutter Wheel divides the webbing into the characterisitic Exact Chip, a regranulate of high specific weight that has not undergone transformations due to secondary thermal processes.



COMPRESSION

The trimmings enter the machine and are compressed by special Bushes with a diamond profile. The trimmings are transformed into a semi-rigid web.

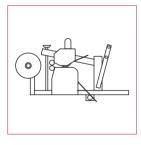


RECOVERY

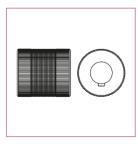
The Exact Chip can be stored or put back directly into the extrusion process, eliminating the waste material.

ACCESSORIES

INFEED DEVICE



COMPRESSION GROUP



Ø À ø

DANCER

EXTERNAL SYNCHRONISM

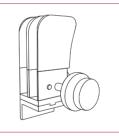


SYNCHRONISM

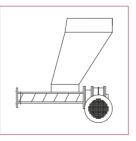
INTERNAL

PVM

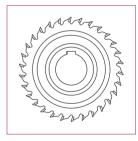
CONVEYORS



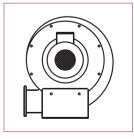
FORCED **FEEDERS**



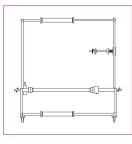
CUTTING GROUP



TRANSPORTING GRANULES



UNWINDING **STANDS**





E-60 INTUITIVE EXTRUSION

Developed by EXACT and improved by continuous applications in the field, the E-60 is our Hot Pelletizer machine; ready to take on the challenges of intense daily use by Thermoplastic Film production plants.

This unit boasts a **clean**, **visible layout**, **for quick and easy access to all of its components**, and the best technology, derived from EXACT's decades of experience in the Cold Recovery sector. The E-60 is equipped with our specially designed and renowned Tow system (link), avoiding the use of noisy air and/or other problematic systems; a screw designed and developed by EXACT for a **gentle and controlled fusion** of the edge trim to avoid stressing the films thermoplastic characteristics; and the potential to fully automate in-line recovery, eliminating any possibility of trim contamination. Try EXACT's Extruder E-60, and discover all the advantages for yourself.



TECHNICAL FEATURES

WORK SPEED	up to 200 m/min
HOURLY PRODUCTION RATE	up to 75 kg/h
MAIN MOTOR	15 kW
TOWING	with high resistance crushing rollers to compact the trim and eliminate screw pulsations
SENSOR	for signaling material deficiency which stops the screw in case of missing trim
NITRIDED SCREW	with low L/D ratio complete with 3 thermoregulation zones: 2 with dual intervention (heating and cooling)
ADJUSTMENT	independent adjustment of, towing speed, screw RPM, and blade rotation speed
TRANSDUCER	melt pressure transducer for material fluidity control
DIEFACE	and cutting unit air cooled with 2 or 4 blades
OMRON OPERATOR	interactive color Touch Screen 7.5"

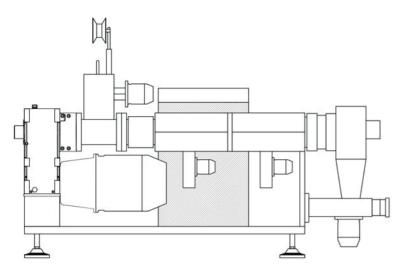
TREATED MATERIALS

Suitable for the recovery of films containing mixtures of:

L	DPE	LLDPE	mLLDPE	HDPE	EVA	соРА	EVOH	PIB	PP	
---	-----	-------	--------	------	-----	------	------	-----	----	--



WEIGHT AND DIMENSIONS



NET WEIGHT (kg): 850 WIDTH (mm): 2200 DEPTH (mm): 750 HEIGHT (mm): 1500

ACCESSORIES



S

INTERNAL

SYNCHRONISM

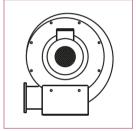
EXTERNAL SYNCHRONISM



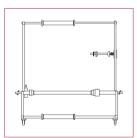
DANCER



TRANSPORTING GRANULES



UNWINDING STANDS





PVM VERTICAL MOTORIZED PREHEATER

PVM, an acronym for Vertical Motorized Preheater, is the perfect solution for the treatment of particular plastic materials.

This accessory is **composed of a Dancer**, **three motorized driving rollers** to stretch the plastic film and a series of **electric heating resistors** for the surface heating treatment of the edge trim to be recovered.

The adjustable temperature of the resistances ensures that the treated film reaches **the temperature necessary** for recovery without altering its technical characteristics.

The use of the PVM allows you to:

Increase the density of the granule to facilitate mixing with the virgin material

Achieve a good specific weight of **monorientate**, **bi-oriented**, treated or **high-slip** films

Recover Iron cast or thick film to obtain pellet sizes as desired

Reduce the pellet **size**

Remove moisture from hygroscopic films

Remove dust due to the cutting of rigid films

Eliminate the surface lint of the non-woven fabric

Crystallize PET film

Soften the material to reduce the work load of the mechanical parts

Thanks to the PVM, the range of EXACT granulators is expanded, guaranteeing excellent results with complicated materials.



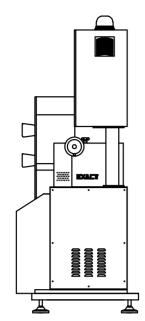


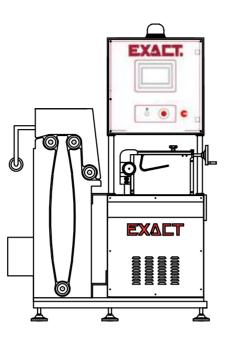






COMPATIBILITY GRANULATORS





There are **two PVM models** available: **250** and **300**. The difference between the two models lies in their varying heating capabilities dictated **by differing amounts of power supplied** to each by their respective electric resistances. Both PVM models have been studied by EXACT and are **able to adapt to the workload** generally supported by each EXACT granulator model.

	PVM 250	PVM 300
R6 GOLD	X	
R6 JUMBO	X	
EVOLUTION 10	X	
CYKLOP 20		X
CYKLOP 30		X

WEIGHT AND DIMENSIONS

	HEIGHT (mm)	WIDHT (mm)	DEPTH (mm)	WEIGHT (kg)
R6 GOLD + PVM 250	2000	1320	700	560
R6 JUMBO + PVM 250	2000	1320	700	540
EVOLUTION 10 + PVM 250	2160	1400	840	750
CYKLOP 20 + PVM 300	2340	1600	960	1020
CYKLOP 30 + PVM 300	2440	1600	960	1120



DANCER PERFECT TENSION

A swinging arm able to **cushion overhangs in the edge trim tension** due to accidental blows or tears.

Mounted on the granulator, this accessory is able to **self-regulate** the **working speed of the granulator as the input speed of the edge trim varies**. Thanks to its function as a micro-regulator, the Dancer is the perfect completion of the External Synchronism, equipped on all EXACT machines.



To ensure an excellent pellet, **the edge trim must enter the granulator at a constant speed** ensuring that the ratio between the speed of the cutter wheel and the trim feeder is fixed.

If the edge trim suffers a blow or tear on its way to the granulator, this constant feeding speed may be compromised. To overcome this, EXACT granulators can be equipped with a Dancer, a swinging arm that cushions these occasional variations in speed and tension.

Mounted on the granulator, the Dancer compensates for these micro oscillations in two ways:

• Mechanically: its pulleys and oscillations dampen the overhang in the trimming tension.

• **Electronically**: the Dancer reads the voltage and speed overhang of the edge trim and then **increases or decreases** the **speed of the cutter wheel independently**, to maintain the fixed ratio between the speed of the cutter wheel and the input speed of the edge trim.

EXACT Dancers are able to ensure a **high quality** finished product even in the event of accidental voltage and/or trim speed variations.

To make it easier to manage the edge trim and prevent it from returning to the production system in the event of an involuntary stop, the Dancer **can be combined with the In-feed Device** for added assurances.













CUTTING GROUP THE PERFECT CUT

In order to obtain a perfect granulate it is essential to cut the material to be recovered in the best possible way.

The **extreme attention** EXACT devotes to the making of its cutting unit components is demonstrated by **the very high quality of its Cutters Wheels and Counter-Cutter Blades**.

All EXACT cutting units are **internally producted starting from the raw material** and the use of **precious materials**, such as **WIDIA** plates.

It is also possible to adjust the **"cut precision" of the cutter group**, thanks to a simple and intuitive **operation which gently draws closer the Counter Cutter blade to that of the Cutter Wheel blades**. This process guarantees a consistent "clean cut" and the production of a perfect granule despite the passage of time.

EXACT Granulators can be equipped with:

• **Cutter Wheels with a different number of blades** (18/24/30/36) to obtain **granules of different lengths** for easier re-introduction of the granules into the production extruder.

• "Long-life" Counter-Cutter blade: a specially treated counter-cutter blade for handling trims with very high **Metallocene (mLLDPE) or Calcium Carbonate** contents. This treatment toughens the blade making it capable of cancelling the abrasive effects of such films and **guaranteeing its long life** even with the most weary materials.





COMPRESSION GROUP THE FIRST SET TO A PERFECT GRANULE

Compression and Cutting methodologies are essentially the heart of EXACT Cold System Granulators. Due to the **internal production** (starting right from the raw materials used) of EXACT Compression Bushes with special diamond profiles, EXACT pressure bushes guarantee the attainment of a compact and easy mixing granule. Providing pressure bushes with different pitches (PDP) means that by simply substituting or switching out the pressure bushes (based on diamond profiles and pitches), EXACT granulators can be adapted to recycle even the most diverse materials, in terms of thickness and trim quantities.





CONVEYORS

In order to guarantee the highest **granulate** quality in terms of **weight and dimensions**, it is necessary to be able to act on the conveyance of the trim at the granulator entrance. All EXACT units can be equipped with **Single, Double or Self-Adjusting Conveyors**, depending on the width and thickness of the material. The conveyors are **fully adjustable** allowing the operator to make micro-adjustments until the desired result is achieved.

To determine which Conveyor is best suited to your needs, a free sample test of your material can be arranged.



INTERNAL SYNCHRONISM

This system, also standard on all EXACT granulators, **synchronizes the speed of the all accessories, including the Infed Device, Dancer and PVM with the speed of the cutter wheel**, keeping these ratios constant when the recovery speed changes.



EXTERNAL SYNCHRONISM

All EXACT granulators are in continuous communication with the film production line due to an External Synchronization System, standard on all EXACT machines. This system **regulates the working speed with that of the production line**, constantly maintaining the desired stretching ratio.

SE



TRANSPORTING GRANULES

The granules produced by EXACT granulators can be re-introduced into the extrusion process or brought into storage via **two main transport systems:**

• APF System, consisting of a standard transport fan in direct contact with the EXACT chip. The advantage of this system is the minimal space required as the fan can be positioned inside the machine.

• Venturi System, consisting of an external fan onto the granulator. With this solution, the EXACT chip does not come into contact with the fan blades. As such, it is the **optimal solution for transporting** granules obtained from the extrusion process as well as EXACT chips, which could reopen despite compression by the compression bushes (for cold system).

The granules can be transported via two main transport systems each with differing **amounts of power, starting from 0.55 kW and up to 5.5 kW**. Both **flexible or rigid (in galvanized steel) transport tubing** is available from **70 mm to 160 mm** in diameter. EXACT also supplies **path diverters**, allowing the units to operate either In-Line or Off-Line. Discharge **Cyclones** for the separation of the granules from the air, are also available. In the event you need to stock the granules, we also supply **Big Bag support and emptying systems**.

To meet the demands of those **with minimal operating space**, EXACT has also designed and developed a **"Cooling Snail"** specifically intended for use in combination with our hot recovery systems. Despite its compact shape, it is able to **replicate 10 m of linear cooling pipe**, guaranteeing the delivery of a cooled pellet not subject to clumping.

Multiple systems and countless combinations to **give you maximum freedom in adapting our solutions to your work ecosystem**. Whatever your needs, EXACT has all the answers. Together with us, you are guaranteed the optimal transport and re-feeding devices, coupled with the **advice and analysis** of EXACT technicians **for maximum efficiency**.









CIRCULAR FIBER CUTTER WHEEL

VERSATILITY AND PRECISION

The EXACT Circular Fiber Cutter Wheel was designed in collaboration with our Thermoplastics department. It is a precise, solid and reliable instrument, bosting a **Rotary Cutting Wheel** with a **steel body and blade**, as well as **tape guide Flanges made of Canevasite** (Bakelized fabric) for cutting different lengths. It comprises a **Pressure Bush** also in Canevasite, and is **driven by a Pneumatic Cylinder**.

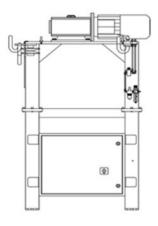
Our cutter is perfect for cutting Raffia used in construction as a final reinforcement in Concretes, Mortars and Gunites. It can easily process **PP Fibrillated Raffia, Fibrous Twine materials, multifilament PP/PE/PA, and/or monofilaments**. The circular fiber cutter has also been successful with the processing of fibers of unkown blends and/or origins, due to protection of trade secrets.

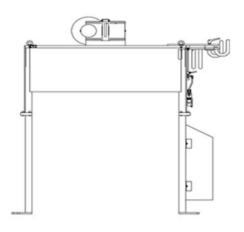


TECHNICAL FEATURES

ENGINE POWER	7,5 kW
CUTTER WHEEL CIRCUMFERENCE	1369 mm
CUTTER WHEEL DIAMETER	550 mm
INTERNAL DIAMETER	432 mm
CUTTERWHEEL HEIGHT	35 mm
PRESSURE ROLLER DIAMETER	210 mm
CUTTER WHEELS AVAILABLE FOR CUTTING LENGTHS OF:	6-12-24-30-60 mm/ 10-20-30-40-60 mm / 12-24-30-60 mm / 15-30-60 mm / 20-40-60 mm

WEIGHT AND DIMENSIONS





WIDHT (mm): 1000 + 300 HEIGHT OF TAPE GUIDE DEPTH (mm): 1160 HEIGHT (mm): 2270



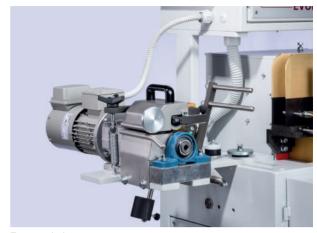


TOWING SYSTEM DEVICE

EXACT towing devices are **motorized auxiliary machines** that can be mounted directly on film production machines in a stand-alone function or directly onto the granulator.

The basic function is the same; thanks to the presence of pull rollers **any type of film or edge trim is towed and pushed**, but the technical characteristics and functions differ depending on the tow model and/or use.

Over the years EXACT has designed and developed ad hoc towing devices to meet the most diverse needs of customers.



Tear tow device

TYPES OF TOWING SYSTEM

COLUMN SCROLLING TOW: this type of **stand-alone** towing (infeed) device does not need a speed setting, because it **automatically adapts its tow speed to that of the entry trim**, guaranteeing a smooth and linear sliding process.

TOW MOUNTED ON PRODUCTION SYSTEM: this towing system is positioned directly on the film-making equipment. These small tows **ensure the continuous extraction of the edge trimmings**, moving them towards a desired direction. Their presence **avoids the unpleasant and dangerous scenario of a back-up of the trimming in the production plant** with consequent damage to the plant and to the film being produced.

INFEED DEVICES FOR GRANULATORS: this style tow is mounted **on the granulator**. The tuging of the edge trim prevents the trim from backing up on the film production side, even in case of involuntary stoppage of the granulator. It also **allows the management of the tension (pull/stretch) on the trimings**. This stretch ratio is determined by the difference between the speed set for the towing device and the working speed of the granulator. The different speeds of trim recovery, are controlled by the settings of the infeed device and the pressure bushes of the granulator, which together create the necessary stretching of the edge trim (depending on the material being recovered), to obtain a perfect granule that is easy to reintroduce into the extrusion process. The tow device **can be combined with the Dancer**, making the speed and tension adjustment of any trim being recovered, even more practical and easy.

IRREVERSIBLE TRIO: there are certain materials that require a very high (ironing) stretch ratio in order to be recovered to perfection. To increase the stretching ability of EXACT granulators equipped with infeed tow devices or PVMs, EXACT has designed and developed the "Trio" infeed system. This is a **stand-alone towing unit with 3 larger rollers** capable of strongly (ironing) stretching the material without damaging or ripping it.

TEAR TOW DEVICE: these infeed (tow) systems are equipped with different sliding bushes and are capable of providing **much** greater compression or tearing of the material.



Tow mounted on production system



Irreversible Trio



Column scrolling tow





MICROPERFORATORS COLD SYSTEM

EXTREMELY EASY, MAXIMUM UTILITY

EXACT Microperforators are used for the micropiercing of thermoplastic films and/or paper, rendering them breathable. Extremely versatile, these machines can be **applied on extrusion lines, printing machines, welders and rewinders**.

The final product application varies from food product packaging, (for fruits, vegetables), floriculture packaging or technical products, such as filtering materials.



TYPE OF APPLICATIONS

Each application is diversified according to the type and number of punctures required. The option to customize all these aspects is available. **You can decide the:**

- Arrangement and pattern design of the needles
- **Density** of perforation
- Diameter of the perforating needles
- Length of perforating shaft and countershaft.

The shafts, which are not motorized, allow themselves to be dragged by the motion of the film passing through them, accomodating the film line speed.

The countershaft, made of animal hair, is pneumatically regulated to better adapt to different film thicknesses to be drilled. The penetration of the needles and the diameter of the hole into the material, can be micro-regulated by **two handwheels** that directly operate the position of the rollers.

MODELS OF MICROPERFORATORS

To accomodate frequent and rapid changes in perforation speed or pattern, EXACT produces two models of microperforators:

SINGLE ROLLER MICROPERFORATOR: the needles are fixed on **100 mm wide bronze sleeves**. To obtain a different microperforation it is necessary to stop the machine and replace the bronze sleeves with different perforation patterns.

MULTIPLE SHAFT MICROPERFORATOR: is made up of **three needle rollers** with 100 mm sleeves, arranged on a **rotating drum**. This unit offers complete customization and **instant puncture variations** by simply turning the roller drum, minimizing machine downtime. Operator contact with the needle rollers is not required, thus eliminating the risks of user injury.

As with all our machines, **EXACT Micro-perforators are designed and built according to your needs**, in order to ensure the desired result required.





FORCED FEEDERS PERFECT FOR RE-FEEDING THE EXACT CHIP OR LIGHT GRANULES

Our Forced Feeders are the perfect solution for the **reintroduction** (in a closed cycle) of a **homogeneous mixture of regranulate and virgin resin**, into the production extruder.

Even in cases where the regranulate has a lower weight than the virgin resin, **re-feeding and mixing are ensured because of three factors:**

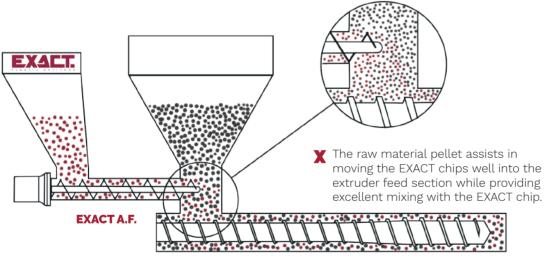
• **Positioning** of the feeder under the gravimetric hopper: the heavier weight of the virgin granule pushes even the lightest regranulates in the extruder, by simple gravity.

• **Continuous mixing** of the granules inside the connector area to ensure homogeneity in the re-feeding.

• Larger feeding mouth dimensions to avoid any blockage or bridge formation.

Simple tricks which lead to surprisingly good results.





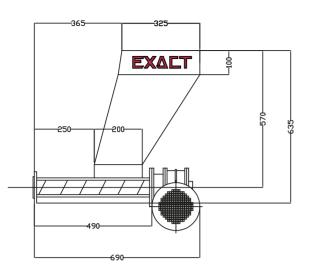
PRODUCTION EXTRUDER

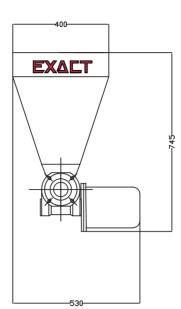
TECHNICAL FEATURES

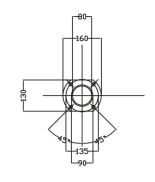
COCLEA SCREW DIAMETERS	60 mm/80 mm/100 mm
MOTORS AVAILABLE	0,75 kW/1,5 kW
CAPACITY	from 10 kg/h to 500 kg/h
SAFETY GRILL	Stainless Steel inside the Hopper
INSPECTION WINDOW	on Hopper



SIZE AND DIMENSIONS







AVAILABLE VERSIONS

CONSTANT SPEED: This type of feeder does not allow regulating and/or dosing of the regranulate. The constant speed feeder must always work coupled with an **open mouth extruder**.

VARIABLE SPEED: Controlled by an Inverter, **it works as a volumetric doser**. Being able to adjust the speed of the feeding screw, it is possible to dose the feeding of the regranulate, in variable percentages. It is also possible to synchronize the speed of the feeder screw with that of the extruder screw, to keep the percentage of regranulate to be re-fed with the virgin granule always constant.

As with all EXACT solutions, our Forced Feders can also be **customized** to guarantee maximum performance and functionality. Based on the production system properties, the feeding auger, its engine power and the correct reduction ratio can be determined in order to properly manage the re-feeding flow rate.

The connector piece supplied with the Feder will also be constructed to adapt to the size and flow rate of the extruder feed screw, thereby allowing for a perfect connection of the feder above the extruder mouth.









UNWINDING STANDS THE BEST SOLUTION FOR OFF-LINE RECOVERY

Solid and **incredibly smooth**, EXACT Unwinding Creels are self-supporting wrought iron structures that allow you to carry out and recover waste reels of any material and thickness, up to a **maximum width of 3.5 meters**.

Our creels are also the perfect solution for off-line recovery of thermoplastic film in combination with our granulator machines: together they can ensure a **recovery of as much as 200 kg of material per hour**.

With the addition of a slitter blade lever (arm), it is also possible to divide extremely large reels into sectors for an easier recovery, and allowing for optimal granulator use.

TYPES

HORIZONTAL UNWIND STANDS Perfect for **large reels**.

Maximum useful width: 3500 mm.



Horizontal unwind stand

VERTICAL UNWIND STANDS The most popular. **Occupy less space** and offer **maximum mobility**.

INCLINED UNWIND STANDS

When **recovering several coils simultaneously**. Maximum reel width: 500 mm.

All EXACT creels are supplied with **special adapter cones** to easily handle reels with tubes or cores of different diameters. As with all our solutions, we are able to modify and **customize standard creels according to your individual needs**: whatever your requirements, we will help you attain them.



Vertical unwind stand





EXACT BUILDING SOLUTIONS

Strong Fiber® originated from EXACT's Thermoplastic department. It is a special **Microfiber made of virgin Polypropylene, stretched and fibrillated, and is used to reinforce concrete, mortars and gunite products**. Strong Fiber® is water repellent, highly resistant to abrasion, has high tenacity and is insensitive to humidity. It is resistant to alkaline agents, chemicals, molds and microorganisms. Mixed in cement or lime based mixes, Strong Fiber® **creates a three-dimensional micro-reinforcement**, increasing the durability, elasticity and providing an overall enhancement of the product.



Fibrillated polypropylene comes in small bundles, like many small straw sheaves. When mixed in concrete, it opens forming a three-dimensional and capillary like grid that fills all gaps and spaces in the compound. Thanks to the small dimensions, the **distribution is random but uniform and the fibrillation of the material prevents the fibers from agglomerating** or knotting in a single point, a possible occurrence when using non-crosslinked fiber additives.

With the uniform addition of Strong Fiber, concretes acquire new mechanical, physical and aesthetic characteristics.

ADVANTAGES



UNIFORM DISTRIBUTION

Strong Fiber's fibrillated structure and contained dimensions ensure **ease of distribution when added to any concrete mixture**. It can be added by hand, with conveyor belts or special dispensers. The homogeneity of distribution ensures a multi-purpose and capillary reinforcement.



REDUCTION OF CRACKS DUE TO PLASTIC SHRINKAGE

Strong Fiber® reduces cracks due to the plastic and hygrometric shrinkage of the concrete during the delicate drying phase of the compound. The polypropylene fibers intercept the shrinkage cracks in their microscopic phase, stopping their propagation and development.



REISTANCE TO ABRASIONS AND IMPACTS

The plastic characteristics of Strong Fiber® microfibers, increases the durability of concrete mixtures, **increasing its toughness index** resulting in a product that is more resistant to blows and superficial abrasions.



NO SEPARATION/SEGREGATION OF THE AGGREGATE

Strong Fiber's® uniform distribution and homogeneity in the mixture **prevents** the dangerous phenomenon of "aggregate segregation" with consequent surfacing of aqueous matrix in surfaces **(bleeding)**, causing an overall weakening of the concrete.



MORE ELASTICITY

Concrete with the Strong Fiber® addative, acquires greater **resistance to bending, vibration and traction**. This is due to the kinetic absorption power of the propylene fibers which can continue to shrink, pull and/or stretch even after the concrete has dried and set.



CORROSION RESISTANT

Polypropylene fibers are **resistant to acids, alkaline agents, molds and microorganisms**. Concrete with Strong Flber® addative is more resistant to corrosion and has greater resistance to environmental and chemical aggressions.





SPALLING EFFECT REDUCED

In the event of a fire, the increase in internal concrete pressure due to overheating of the water that cannot evaporate, can result in the phenomenon of **"spalling"**, the violent explosion of concrete. The presence of polypropylene fibers **delays and reduces this dangerous phenomenon**, because, once the melting temperature is reached, they dissolve creating a structure of capillary channels that discharge steam and interstitial heat, thus avoiding the violent explosion of the concrete.



RESISTANCE TO EXTREME TEMPERATURE FLUCTUATIONS AND UV RAYS

The reduced permeability, crack potential, and the chemical-physical characteristics of the stabilized fibers of Strong Fiber®, **make** concretes and such, more resistant to freeze-thaw cycles, UV rays and high summer ambient temperatures. This results in the elimination of premature aging and an overall better aesthetic appearance over time.

AVAILABLE LENGTHS

Strong Fiber® is produced in various sizes, depending on the aggregates used.

Standard lengths: 3 mm/6 mm/10 mm/12 mm/19 mm/25 mm/30 mm/38 mm/57 mm/76 mm.

For specific needs, fibers are available with lengths starting from 3 mm up to 100 mm.

To obtain maximum dispersibility in mixtures and in short mix time, Strong Fiber® fibers are previously ventilated.

TECHNICAL SPECIFICATIONS TYPE N

SPECIFIC GRAVITY	0.91 g/cm ³
TENSILE STRENGTH	0.55 ± kN/mm²
ELASTIC MODULUS (YONGS)	da 18,5 kW
PERCENTAGE ULTIMATE ELONGATION	~ 15%
ABSORPTION	zero
MELTING POINT	170°C ±1

IGNITION POINT	590°C
LINEAR THERMAL EXPANSION COEFFICIENT (20°C)	75x0,0000001 cm/cm x °C
FIBER LENGTH	3 : 100 mm
DENIER	900 : 16000

APPLICATIONS



INDUSTRIAL FLOORS



CONSTRUCTION IN MARINE ENVIROMENTS



HOME FLOORING



TURBOSOL/GUNITE PRODUCTS



COSTRUCTION IN SEISMIC ZONES



PREFABRICATED OBJECTS



OUTDOOR PAVING



RESTORATION PLASTERS AND MORTARS



THE FINAL TOUCH

For maximum results in your **deflashing processes**, you can rely on EXADUR, a **Polyamide grit with high mechanical resistance**.

These Polyamide nylon granules are the perfect material for final refining processes, using deflashing machines or by blasting through compressed air, of **thermosetting plastic materials, die-casting, rubber or aluminum parts**.

Thanks to its greater density when compared to other plastic grits, the **low abrasive power and elasticity of PA blends**, EXADUR is the optimal solution for the deburring of elements whose surface must not be scratched or damaged during the finishing process. A typical characteristic of thermosetting materials, whose final surface appearance is obtained directly during compression or injection.

To guarantee the best results, **EXADUR is produced in two forms; cylindrical or cubic, and is available in four colors**: red, black, green and natural.

Knowing that quality is an essential parameter: obtaining an excellent grit for deflashing, starting from plastic waste or raw materials recycled from different chemical compositions, is practically impossible.

This is why EXADUR is always **produced from a controlled extrusion of high-quality virgin techno polymers**. The regularity of its final dimensions is guaranteed by EXACT's renowned quality for the cutting of plastic materials, and the intense control measures taken before any product marketing.

If you are looking for quality and perfection for your deburring needs, trust EXADUR; **45 years of EXACT experience bound in a Polyamide grain**.



FEATURES

PROPERTIES

Long life material

Excellent substitute for based materials

Non-abrasive

Does not alter surface characteristics

No contamination or colour transfer

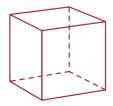
Non toxic-user safe

Does not produce dust

TECHNICAL DATA

MATERIAL	Polyamide (PA)
HARDNESS	R 120 (ASTM D 785)
MASS DENSITY	>400 kg/m³
INSOLUBLE	in water
ODORLESS	yes
DIMENSION	0,50/0,60/0,70/0,75/0,80/ 0,90/1,00/1,20/1,50/1,70/2,00

SHAPES AND COLORS AVAILABLE











Exact SRL

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