

Plastic injection moulding industry

Overview about

- Applications
- Products
- Benefits
- Business

We make quality accessible.

Training material
- Only for internal usage -

Lubrication of moving parts in moulds

- Ejector pins

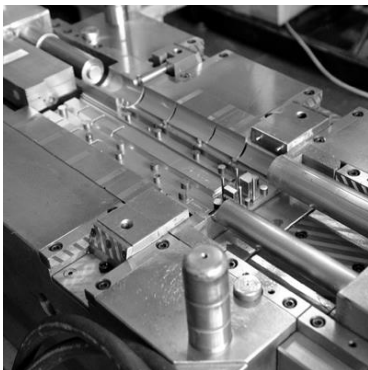


- Sliders

- Guide pins and guide bushings
- Sliding surface of sliders



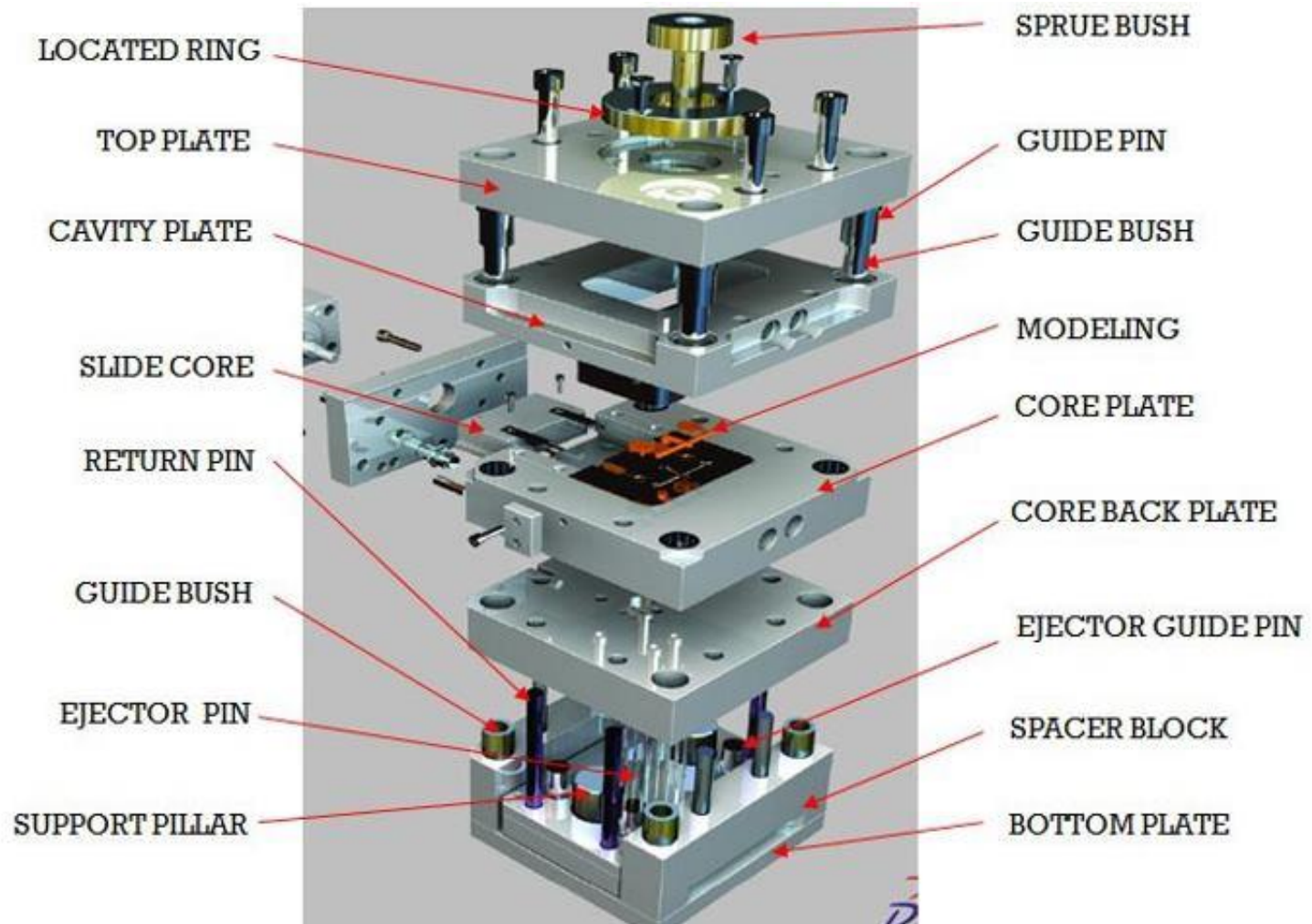
- Core pulls



- Mould guides



Simplified Image of plastic injection moulds



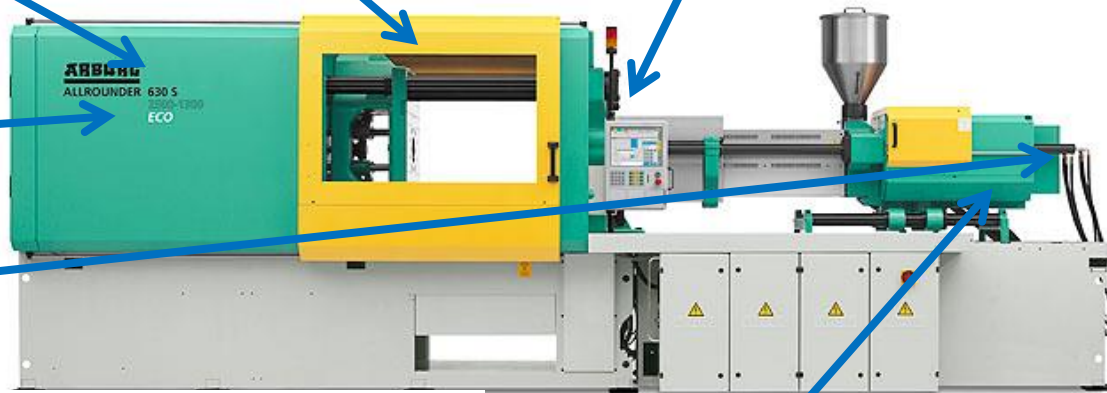
Lubricants for the plastic injection moulding machine (examples)



- Grease lubrication

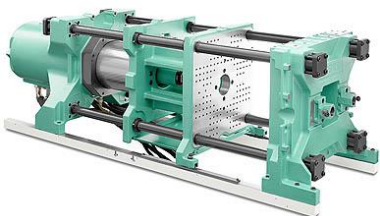
- Tie bars
- Toggle lever

- Assembly paste for nozzle and hot runner systems



- Hydraulic oil

- Clamping unit, Ejector unit
- Drive for injection process
- Extruder drive (hydraulic drive)



- Gear oil for extruder



Cleaning

- Plastic injection mould
 - Deposits from plastic residues
 - Deposits from out gassing
 - Degreasing lubricated mechanical parts
 - Removal of corrosion protectors
 - Removal of residues from colour batches
 - Removal of rust residues on plates



- Plastic injection moulding machine
 - Surface cleaning of all lacquered machine covers
 - Cleaning of safety window and control panel
 - Cleaning and degreasing lubricated mechanical parts in case of maintenance
 - Removal of dropped down lubricants from grease or hydraulic oil

Corrosion protection

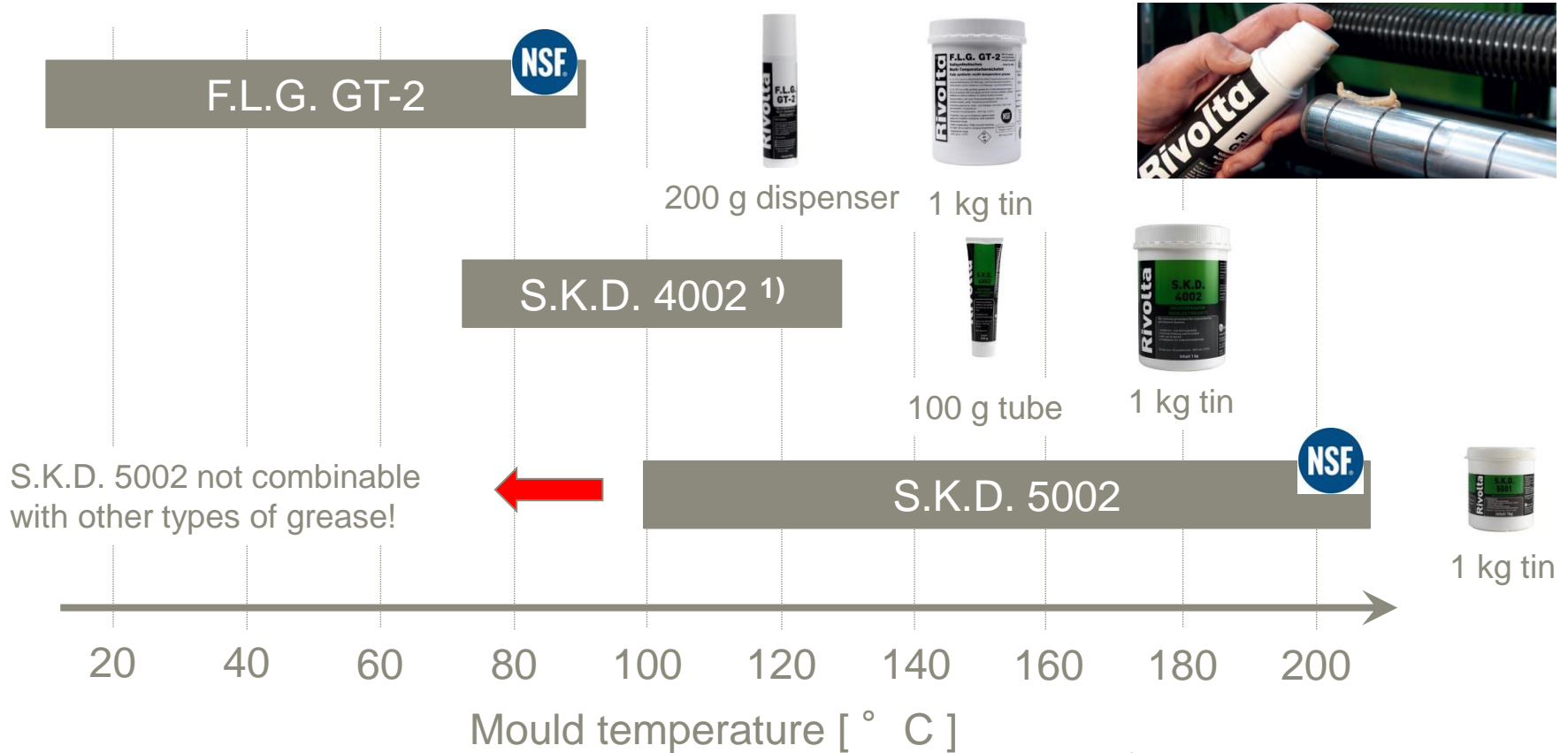
- Plastic injection mould
 - Short-term protection for downtime
 - Long-Term protection for storage
 - Protection for mould transfer to other production locations



- Protection of
 - Cavity
 - Surfaces from core plate and cavity plate
 - Clamping surface
 - External surface

Lubricants for plastic injection moulds

- Ejector pins, core pulls, guide pins – **Base lubrication**

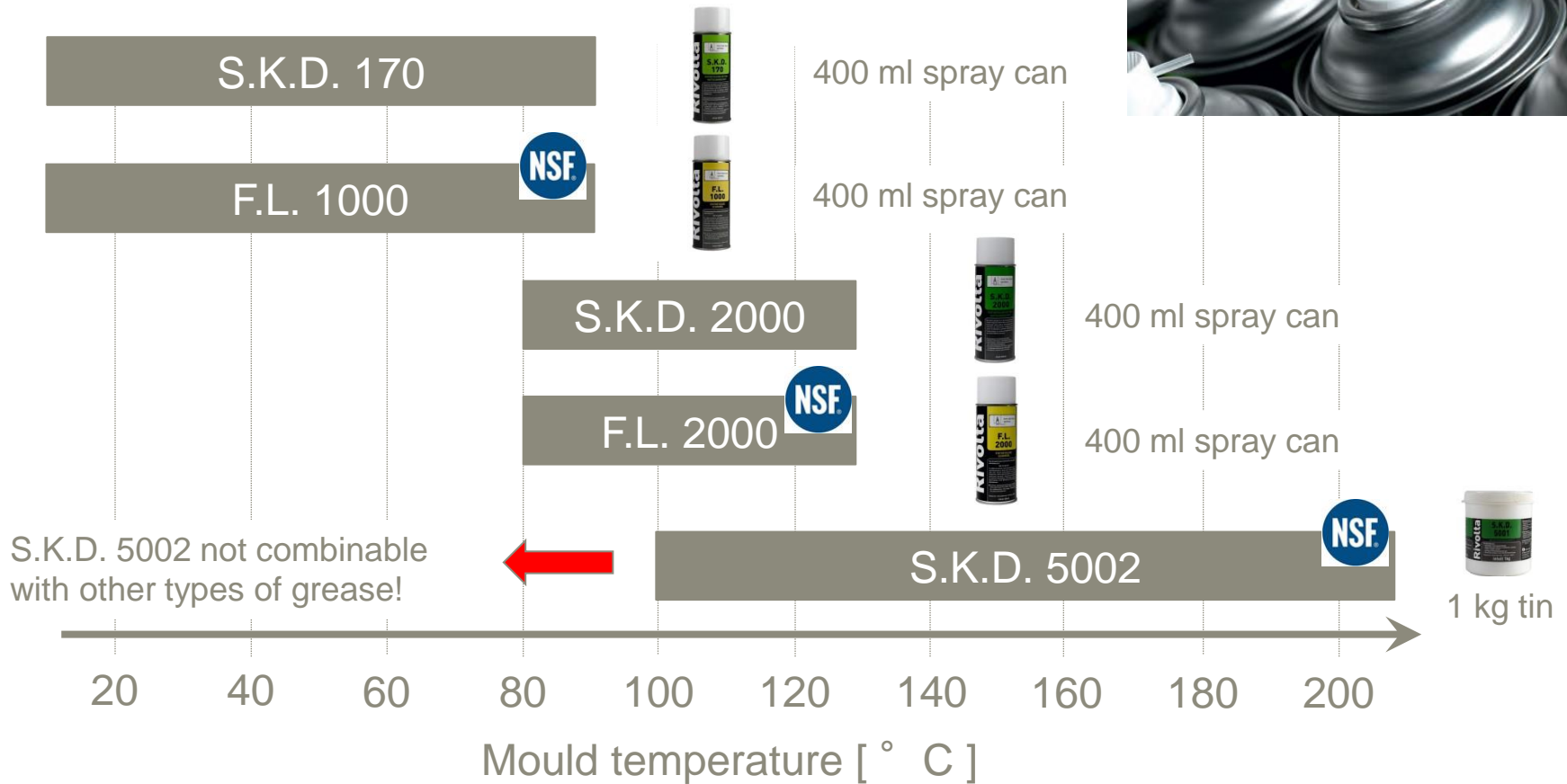


¹⁾ Alternative F.L.G. GT-4 if NSF H1 is required.



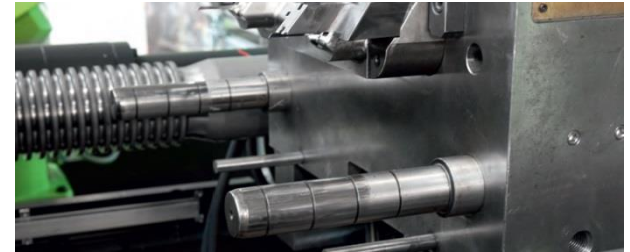
Lubricants for plastic injection moulds

- Ejector pins, core pulls – *Re-lubrication*



Lubricants for plastic injection moulds

- Sliders, guide bushes – **Lubrication**



S.K.D. 3602



1 kg tin



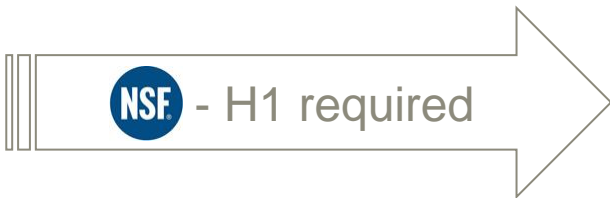
25 kg pail



400 ml
spray can

F.L.G. GT-2 / (F.L.G. GT-4)

F.L.G. GT-Spray



1 kg tin



25 kg pail



400 ml
spray can

Lubricants for plastic injection moulding machine

Application	System	Product	Manufacturer
Clamping unit	Hydraulic	F.L. 75	Arburg, Engel, Krauss Maffei, Ferromatik Milacron
	Mechanical operated	F.L.G. GT-2 F.L.G. 2-0 F.L. PG 250	Arburg, (Ferromatik Milacron) (Ferromatik Milacron) Krauss Maffei
Plasticising unit	Drive of linear displacement unit (hydraulic)	F.L. 75	Arburg
	Drive of linear displacement unit (mechanical)	F.L.G. GT-2	Arburg, Krauss Maffei, Engel
	Screw drive of extruder (gear box)	F.L. 250 F.L. PG 250 F.L. 400	Arburg, Ferromatic Milacron Krauss Maffei Engel
	Mould height adjustment	F.L.G. GT-2	Arburg, Krauss Maffei, Engel, Ferromatik Milacron
General assembly of screw connections, nozzles		G.W.F.	Without hygienic requirements
		F.L.A.	NSF H1-registered

List of approvals – Lubricants for plastic injection moulding machines

Manufacturer	Product	Application
Arburg GmbH & Co. KG	F.L. 75	Hydraulic oil
	F.L. 250	Extruder gear oil
	G.W.F.	Assembly paste
Engel Austria GmbH	CASSIDA Fluid FL 46	Hydraulic oil
	F.L. 75	Hydraulic oil
Ferromatik Milacron	G.W.F.	Assembly paste
Knödler-Getriebe GmbH & Co. KG	CASSIDA Fluid GL 220	Extruder gear oil
	F.L. 250	Extruder gear oil
KOELLMANN GEAR & AIRTEC (soplar s.a.)	CASSIDA GL 320 F.L. 400	Extruder gear oil
Netstal-Maschinen AG	F.L. 100	Hydraulic oil
soplar s.a. Kunststoffmaschinen	CASSIDA HFS 68	Hydraulic oil

Cleaner for plastic injection moulds

- Loosening of plastic residues in cavities



400 ml
spray can

S.F.R. Special mould-cleaner

For dissolving of residues from:

- Polyurethane
- Polyacrylate
- Polyamide
- polystyrene
- Cellulose acetate
- Epoxy resins
- Oil deposits, oil-carbon

S.N.C. 101 / S.N.C. 202

Biodegradable special cleaners

S.N.C. 101 (NSF A1 listed)

- Polyurethane, polyacrylate, polyamide, polystyrene
- Celluloseacetate
- One-component epoxy resin adhesives
- Epoxy resins
- Bitumen
- Oil residues and lacquers

S.N.C. 202

is suitable to remove e.g.:

- PVC-glues
- One-component epoxy resin adhesives
- Caoutchouc glues
- Dispersion glues



10 l can

Cleaner for plastic injection moulds

- Cleaning and degreasing cavities and mechanical parts in moulds

750 ml spray can



A.C.S. 3

Highly effective rapid cleaner spray

- Degreasing and cleaning lubricated mechanical parts
- Removing residues from pre-cleaners like S.F.R. or S.N.C.-products
- Cleaning of high-gloss surfaces
- Removing deposits from corrosion protectors



M.T.X. 60 / M.T.X. 60 forte

Special intensive cleaners

- Fast removal of greases, waxes, cracked oils and other tenacious residues
- Removal of deposits from plastic and out gassings'
- Cleaner for work shop and tool shop (e.g. cleaning table)



Cleaner for plastic injection machines

- Cleaning of lacquered machine covers



Abbildung ähnlich

B.W.R. 210

Cleaning concentrate for universal use with high cleaning power

- Mixing ratio 1:10 up to 1:50 with water
- For cleaning all lacquered surfaces
- Also suitable for floor cleaning

B.F.C.

Foam cleaner for sensitive surfaces

- Screens from control panels or touch panels
- Safety windows (Makrolon)



400 ml
spray can



Corrosion protection

- Cavity, cavity plate and core plate



400 ml
spray can

K.S.P. 305 / K.S.P. 305 R

Waxy corrosion protection

- Extreme thin and safe protection layer
- If needed easily removable. Also after long-term storage
- No penetration into gaps
- Usage for high-gloss surfaces possible
- Cleaning before usage of mould not necessary (clean after 3 to 5 shots)
- Red pigmented version for easy protection layer control available

K.S.P. 312

Waxy corrosion protection

- External corrosion protection for long-term storage or transport



400 ml spray can

Lubricants

- High temperature and aging stability
- High adherence
- Low absorption of contaminants
- Reduction of friction and wear
- Low maintenance costs / effectiveness and long relubrication intervals
- Compatibility with the plastic material of the finished articles
- Possible additional requirements:
 - e.g. physiologically harmless articles for the food or pharmaceutical industry



Cleaners

- Highly efficient in cleaning effect depending by cleaner in combination with impurity
- No content of hazardous ingredients which are dangerous for users health (e.g. no CMR stuffs)
- Surface cleaning without any residues possible (e.g. for high-gloss surfaces required)
- No material attack for metal surfaces



- Reducing different sorts of cleaners possible
- Reducing costs reasoned by reduced needed quantity of cleaner

- Possible additional requirements:
 - e.g. physiologically harmless articles for the food or pharmaceutical industry

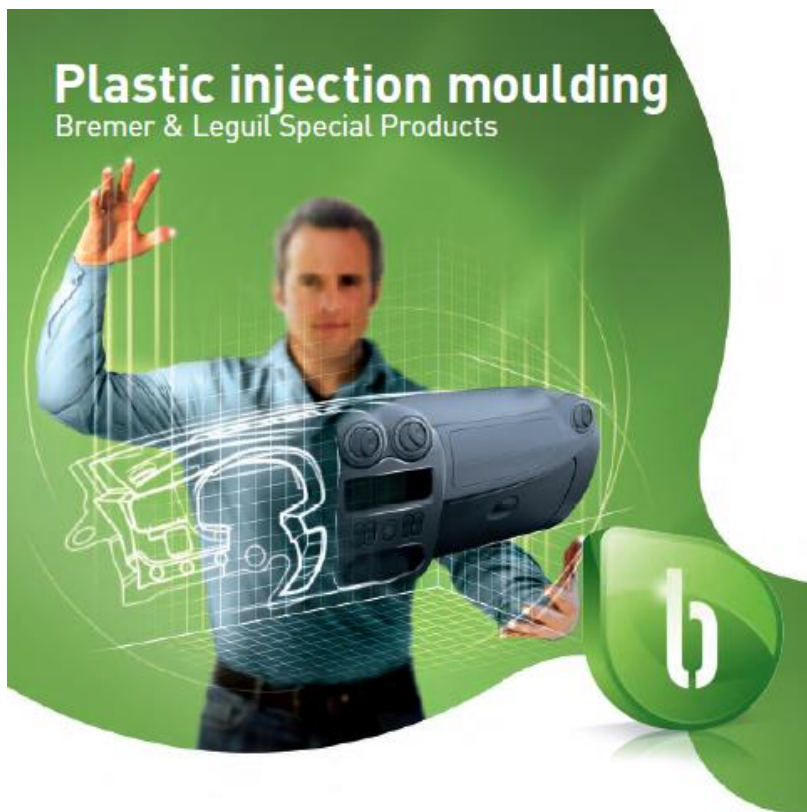


Corrosion protectors

- Fast start of producing goods
- Extreme reduced effort for cleaning moulds after usage of waxy corrosion protector
- Long-term storage up to 2 years possible
- Usage for highly sensitive metal surfaces possible (e.g. high-gloss surfaces, textures, ...)



- No contamination of plastic parts from waxy residues during production time (no penetration into gaps)
- Efficient and economic in use due to the small spray volume



Plastic injection moulding

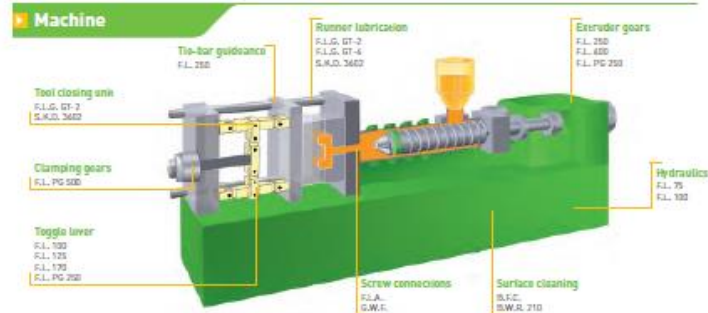
Bremer & Leguil Special Products



Minimize maintenance and maximize efficiency

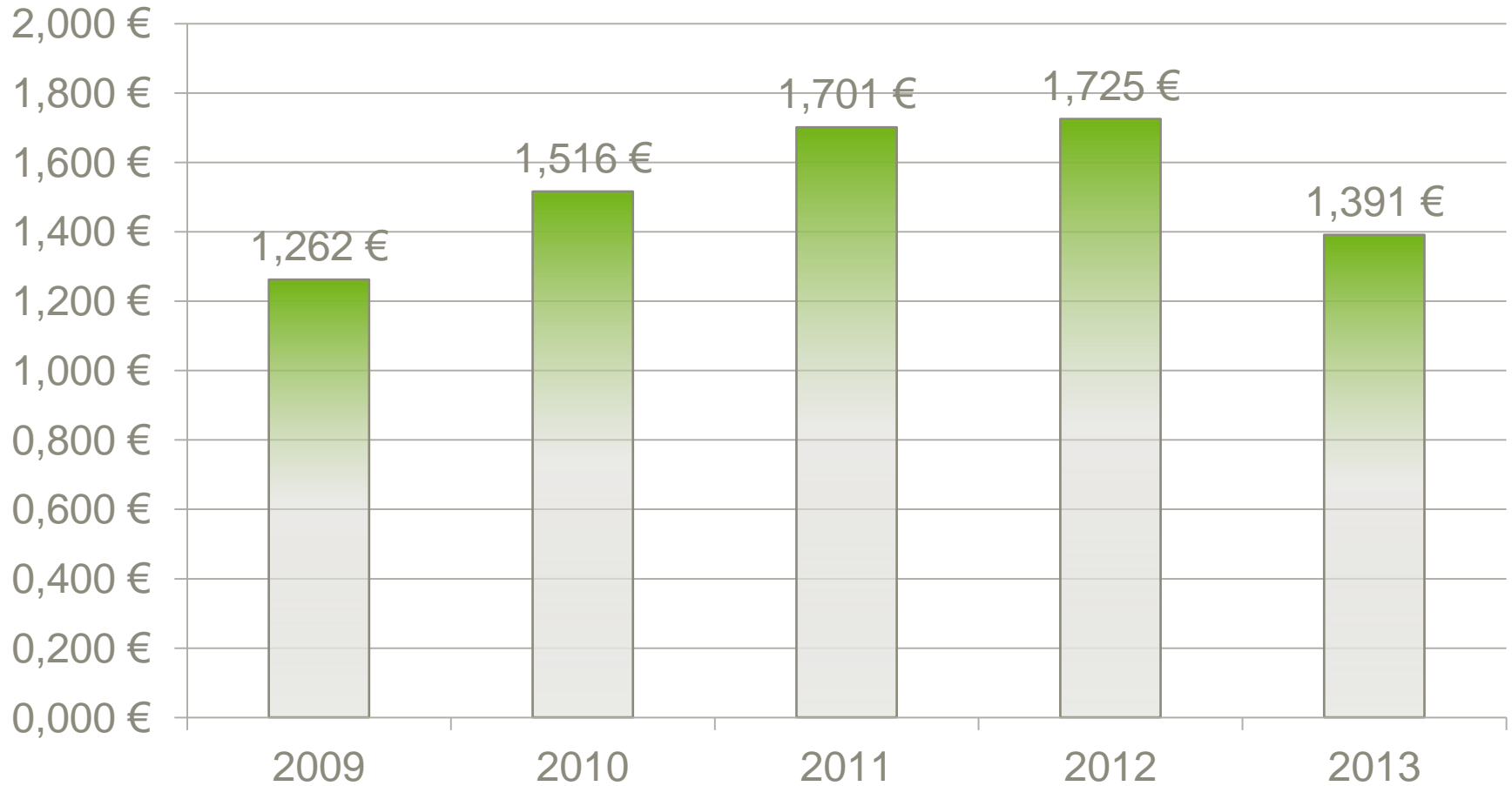


For the lubrication, cleaning, the protection and the release in the plastic production we recommend the use of the above-mentioned products. On the depicted diagrams you can see where exactly which Rivotta Product can be used:

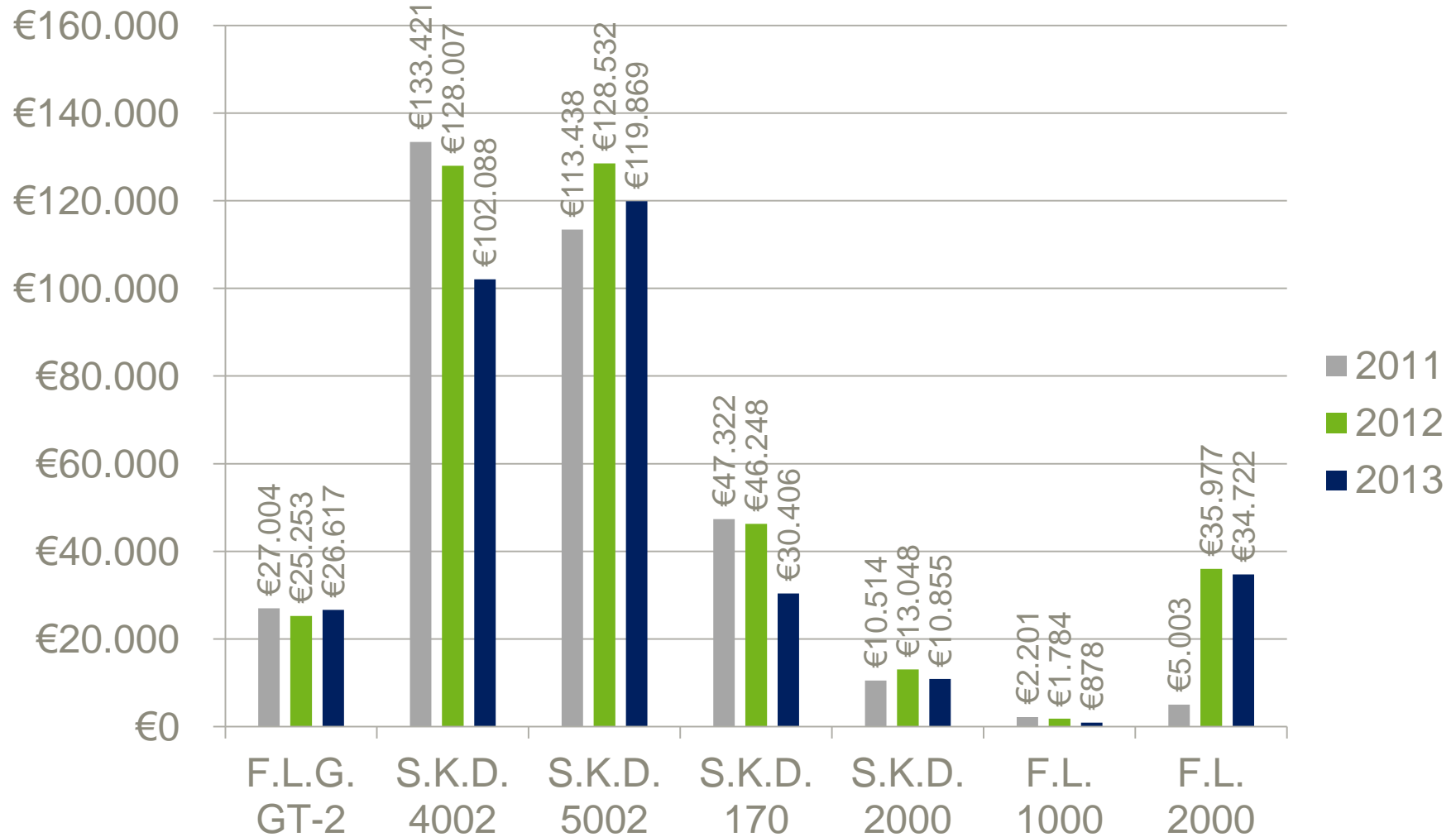


Leading quality: **Rivotta** **ÇASSIDA**

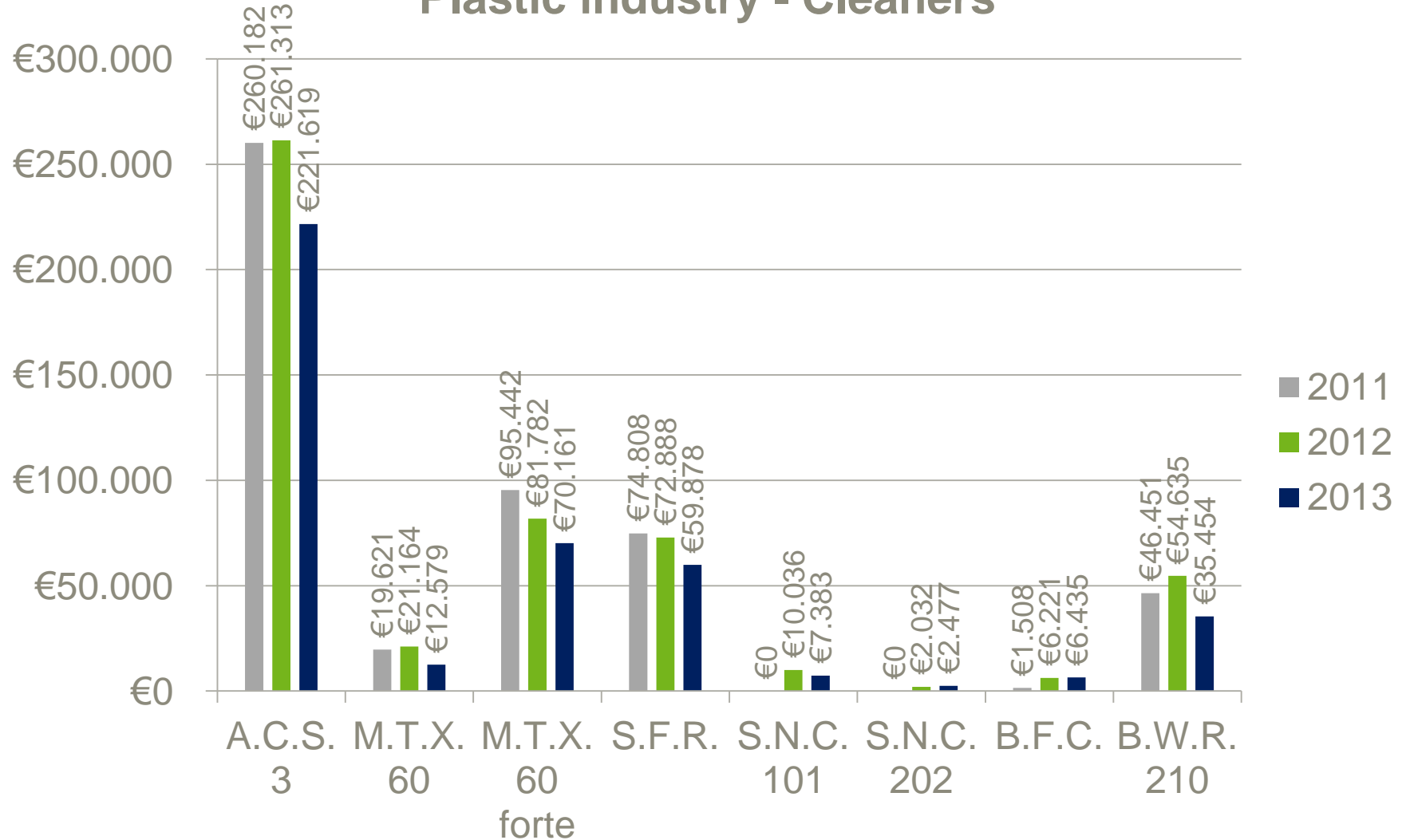
Plastic industry



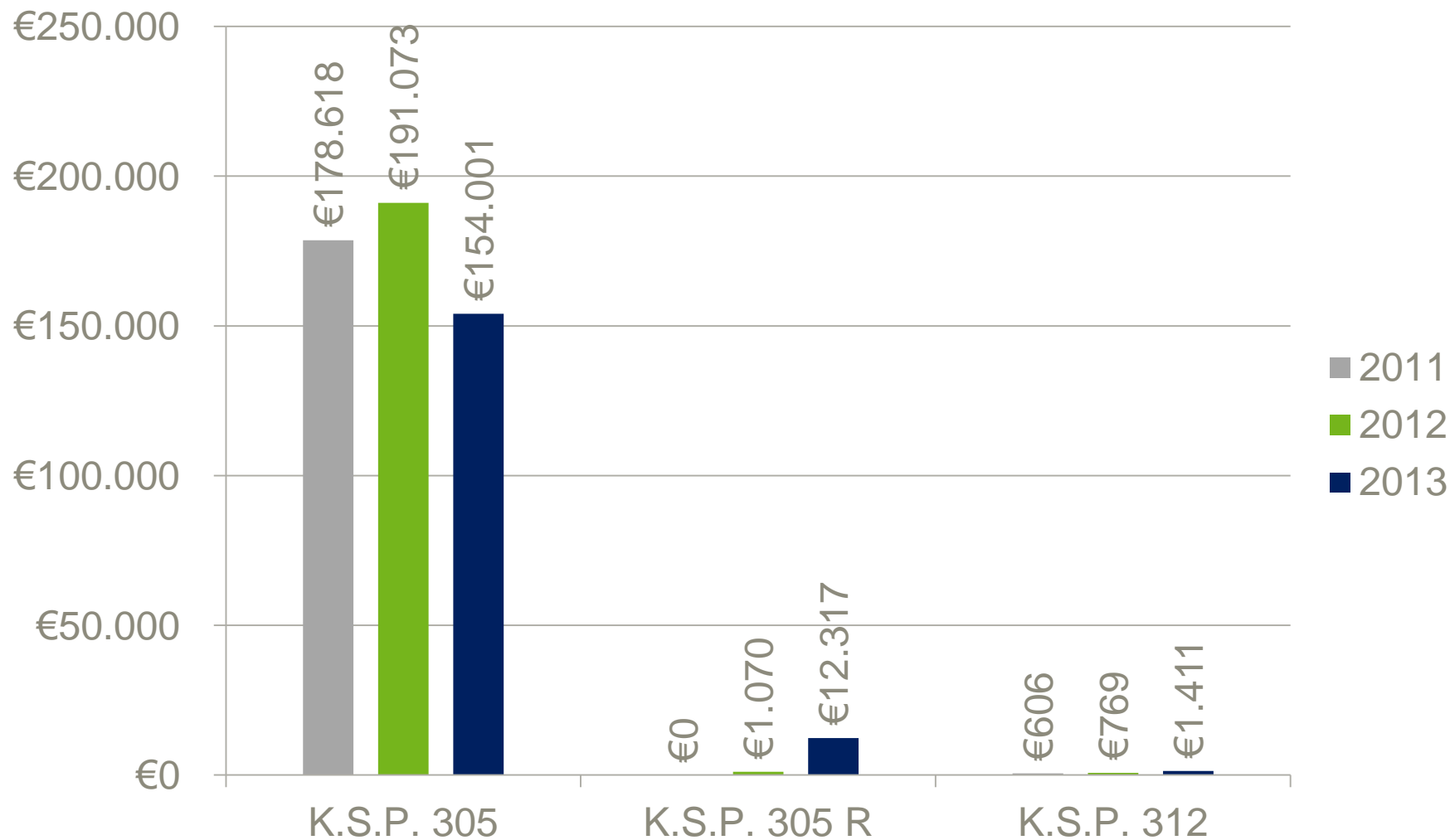
Plastic industry - Lubricants



Plastic industry - Cleaners



Plastic industry – Corrosion protection



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