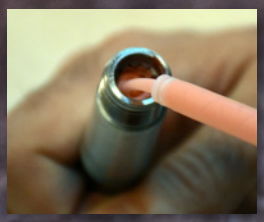
sylvac

Experts in connected metrology !

3D DIMENSIONAL IMPRESSION



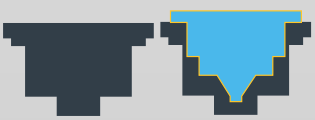




PLASTIFORM

PLASTIFORM®, high precision replicating material for the industry.

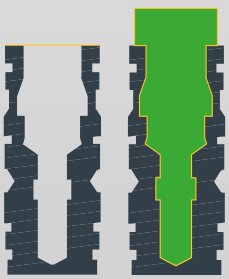
Discover the PLASTIFORM® products that allow to control precisely unattainable or hard to access surfaces, too large, too heavy or too fragile to be handled parts, thanks to impression taking.



Internal forms



External forms



Complex forms

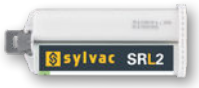
Sylvac SA - Chemin du Closalet 16, 1023 Crissier (CH)
Tél. +41 21 637 67 57 - Email. info@sylvac.ch - Web. www.sylvac.ch

PRODUCTS

DESCRIPTION

PLASTIFORM® products are made up of two components that solidify upon contact (mixing ratio 1:1). While curing, they imitate all details of the surface on which they are applied with a very high precision : dimensions, forms, texture, surface finish...







The products exist in different versions and consistencies :

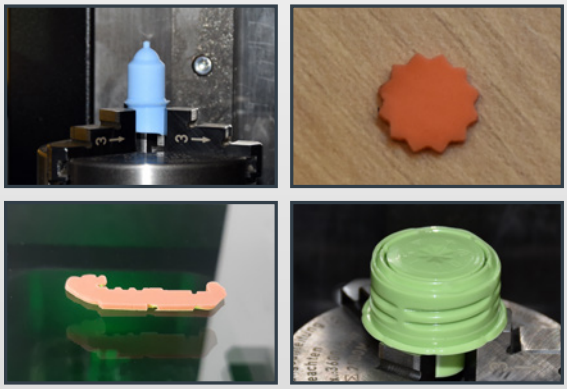
- Liquid products (SRL)
- Cement product (SRC)
- Dough products (SRD)

They allow to obtain flexible, semi-flexible, rigid, or semi-rigid impressions.

APPLICATIONS

PLASTIFORM® products allow to perform :

- Internal complex forms control
- Internal simple forms control
- External complex forms control
- External simple forms control
- Roughness control Ra
- Visual surface finish control
- Protection, masking, seal
- Fix, clamp, add strength to parts



DIMENSIONAL IMPRESSION

The PLASTIFORM® polymer compounds have unique technical features :

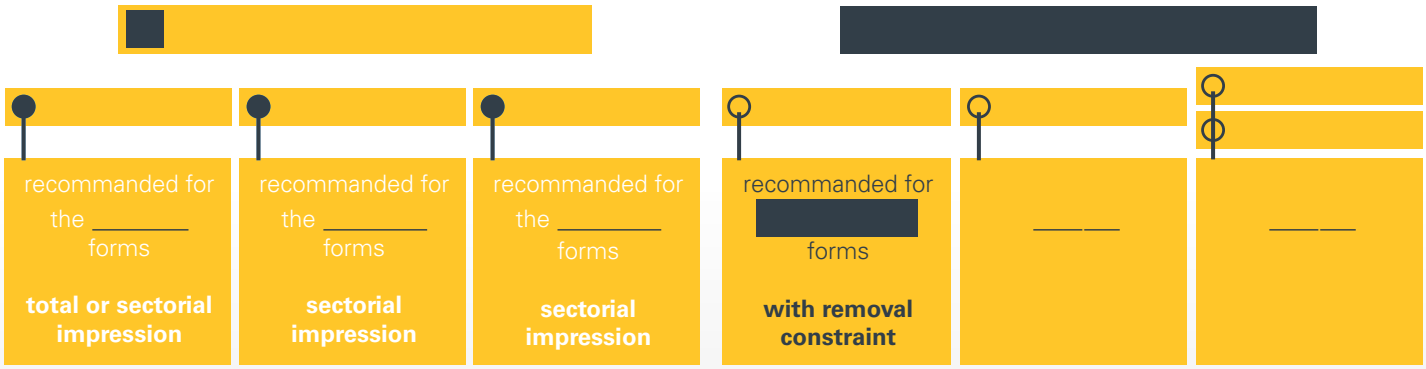
- Virtually no shrinkage
- Micron accuracy
- Shape-retention memory
- No adhesion, no residue
- Environmentally friendly
- Dimensional stability
- Resistance

PRODUCTS

MAIN CHARACTERISTICS

Each PLASTIFORM® has two main characteristics :

- The initial consistency
- The final hardness



This wide range of products enables PLASTIFORM® to provide solutions for a lot of different applications. According to your needs, you may choose a PLASTIFORM® with the suitable initial consistency and final hardness.

REMOVAL CONSTRAINT

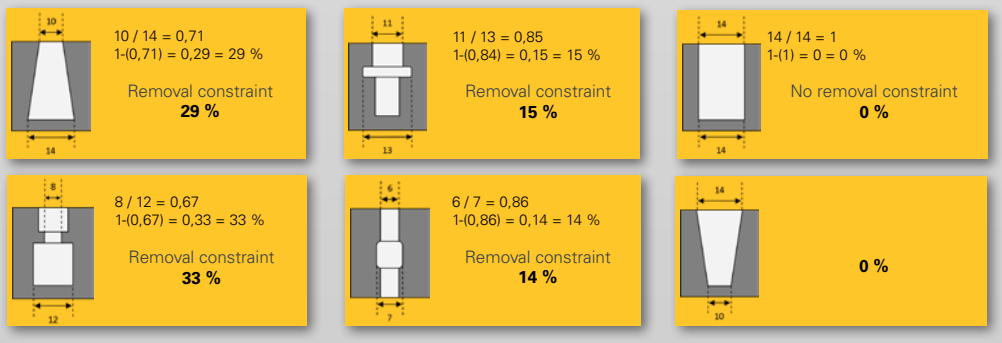
When making a replica casting, some internal complex forms can make it difficult to remove the impression from the mould : groove, thread, undercuts, internal angle. It is called a removal constraint (or backdraft).

It's calculated with the following formula :

$$1 - \left[\frac{\text{Minimum dimension of the extraction hole}}{\text{Maximum internal dimension}} \right] = \text{Removal constraint (in \%)}$$

When this percentage is higher than 0%, you have to choose a flexible or semi-flexible product, that can be misshaped during its removal. When this percentage is 0%, there is no removal constraint. You can use a Semi-Rigid or Rigid product.

Examples :



Final hardness combination.

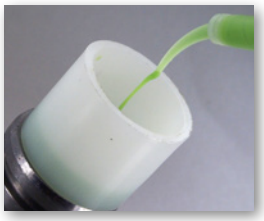
YOUR PLASTIFORM®

The choice of the appropriate PLASTIFORM® is usually made on the Initial Consistency -

CHOOSE THE INITIAL CONSISTENCY

Liquid products

With a liquid consistency, these products are «self-placing» and can be poured easily, even in very small details (thread, small bore...). They are recommended for internal total impressions, and for applications requiring flowing material.



SRL2 SRL3 V SRL5 SRL8

Cement products

Non-flowing, these products are used for sectorial impressions (internal or external), and can be applied on vertical or overhead surfaces.



SRC3 SRC8 Ra SRC10

Technical dough products

With a «modeling clay» consistency, these products are mixed and applied by hand, to create external or internal sectorial impressions.



SRD6 SRD7 SRD9

Re-Form

Small rigid balls to heat, these products produce very rigid impression. The resin is reusable at will.



SRF

YOUR PLASTIFORM®

CHOOSE THE FINAL HARDNESS

Flexible impressions

They accept a strong removal constraint [1] (up to 40%). The impression can be misshaped and stretched to be removed from its mould, then it will nevertheless invariably return to its original shape.





How to control the impression :
Non-Contact Measurement (optical control, profile projector, laser scan…)

SRL2 | SRL3 V | SRC3

1) When making a replica casting, some internal complex forms can make it difficult to remove the impression from the mould : groove, thread, undercuts, internal angle. It is called a removal constraint (see details on page 3.)

Semi-flexible impressions

They accept a low removal constraint (up to 20%). The impression can be slightly misshaped to be removed from its mould, and return to its original shape.



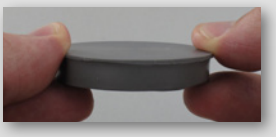


How to control the impression :
Non-Contact Measurement (optical control, profile projector, laser scan…) with the help of the Twin Blade Cutter.

SRL5 | SRD6 | SRD7

Semi-rigid and rigid impressions

They do not accept any removal constraint, because of their rigidity.



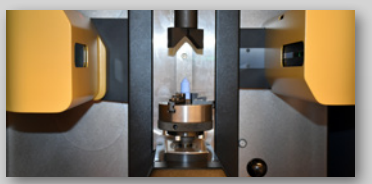


How to control the impression :
Contact or Non-Contact Measurement (caliper, micrometer, optical control, profile projector, laser scan…).

SRL8 | SRC8 Ra | SRC10 | SRD9



Part control with Visio

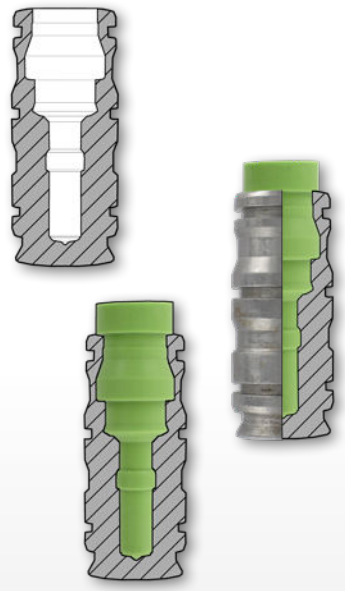


Part control with SCAN

CONTROL

INTERNAL COMPLEX FORMS

With some of the PLASTIFORM® products, it is now possible to easily inspect and measure internal complex features (thread, thread root, groove, radius…), by creating an internal complete impression.



It is recommended to choose a PLASTIFORM® combining the following characteristics :

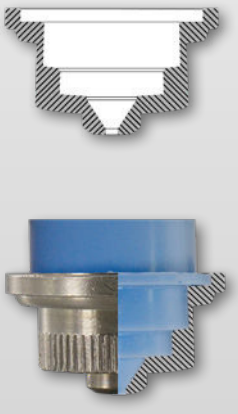
- Liquid initial consistency
  These self-placing compounds will completely fill the internal form of the part, even the finest details.

- Flexible or semi-flexible final hardness
  The replica can be misshaped to be easily removed from the mould.

SRL2

INTERNAL SIMPLE FORMS

When no undercuts or complex shapes are present inside the part (no removal constraint), it is possible to choose a more rigid product, as the impression does not have to be misshaped to be removed.



It is recommended to choose a PLASTIFORM® combining the following characteristics :

- Liquid initial consistency
  These self-placing compounds will completely fill the internal form of the part.

- Semi-flexible, semi-rigid or rigid final hardness
  Easier to measure than soft impressions, especially because they can be «sliced» using the Twin Blade Cutter.

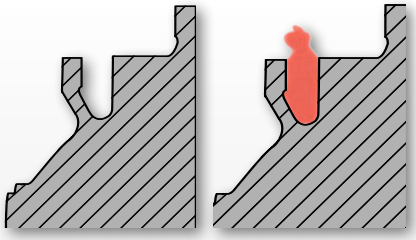
SRL5 SRL8

PLASTIFORM® makes it simple to control inaccessible or hard-to-reach internal features, and prevents destructive testings.

CONTROL

EXTERNAL COMPLEX FORMS





PLASTIFORM® has developed less liquid products, more suitable for taking a sectorial replica cast of external complex forms (T-slots, grooves, notches...).

It is recommended to choose a PLASTIFORM® combining the following characteristics :

- Cement or dough initial consistency
  They do not flow, and can be applied easily on vertical or overhead surfaces.

- Flexible or semi-flexible final hardness
  The replica can be misshaped to be easily removed from the mould.

Thanks to the PLASTIFORM® Twin Blade Cutter, it is possible to create a cross section of the impression to control the features, for example with an optical machine Sylvac-Visio.

SRD6 SRC3

EXTERNAL SIMPLE FORMS





When no undercuts or complex shapes are present in the part (very low removal constraint), it is possible to choose a more rigid product, as the impression does not have to be misshaped to be removed.

It is recommended to choose a PLASTIFORM® combining the following characteristics :

- Cement or dough initial consistency
  They do not flow, and can be applied easily on vertical or overhead surfaces.

- Semi-rigid or rigid final hardness
  Easier to measure than soft impressions, especially because they can be «sliced» using the Twin Blade Cutter.

SRC8 Ra SRC10 SRD7 SRD9

CONTROL Ra

INDIRECT CONTROL OF THE Ra

Some rigid products in the PLASTIFORM® range can be used for Indirect Roughness Control Ra.

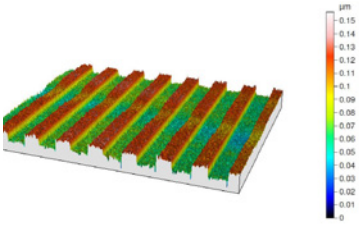
When the surface Ra is ≥ 0,4 µm, the roughness can be measured directly on the cast using a surface meter, and the result is faithful to the original.

For a lower roughness, other inspection methods can be used, including laser metrology and interferometry.

Impossible to reach features are no longer a problem, thanks to PLASTIFORM® impressions, which guarantees a virtually identical replica.

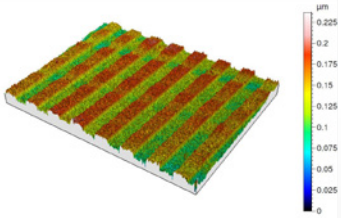
SRC8 Ra

0,025 µm roughness standard



Ra = 0,02602 µm

R.G.X. PLASTIFORM® replica



Ra = 0,02635 µm [2]

2) Test conducted by the CETIM metrology laboratory, Nantes (F)

SURFACE FINISH CONTROL

VISUAL SURFACE FINISH CONTROL

The SRL3V has been specially developed for visual surface finish inspection.

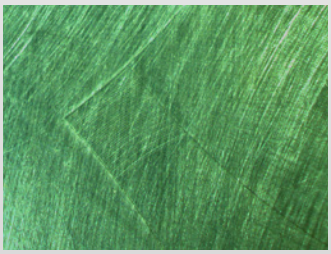
Used by mould makers and polishers, the product accurately imitates all details, surface defects (tool marks, damages, fractures, pitting, striations...) and surface shape (flatness, waviness, curvature...).

The shiny black colour and the material properties ensure higher quality images, which are easier to visually inspect than the original surface.

This process is also used for controlling inaccessible areas.

SRL3 V

Original surface. Magnification x20



Replica. Magnification x20



MASKING - SEAL

CREATE CUSTOM PROTECTIONS

Custom seal



Custom protection cap



PLASTIFORM® products can be used to protect or mask certain areas of a part during surface treatment, including :

- Sandblasing
- Painting
- Chemical and heat treatment
- Polishing
- Coating process : anodizing, chrome plasting...

Because the casts are very durable and resistant, they can be re-used several times without being affected. Once cured, the PLASTIFORM® is impervious to most liquids. It can therefore be used to create custom-made seals.

SRL2 SRL5

CLAMP - STRENGTH TO PARTS

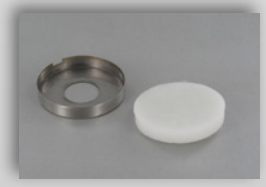
CREATE A CUSTOM CLAMPING SYSTEM

Custom-made fixation



Mechanical reinforcement





Positioning and clamping a fragile or complex part are two basic operations in most manufacturing industries.

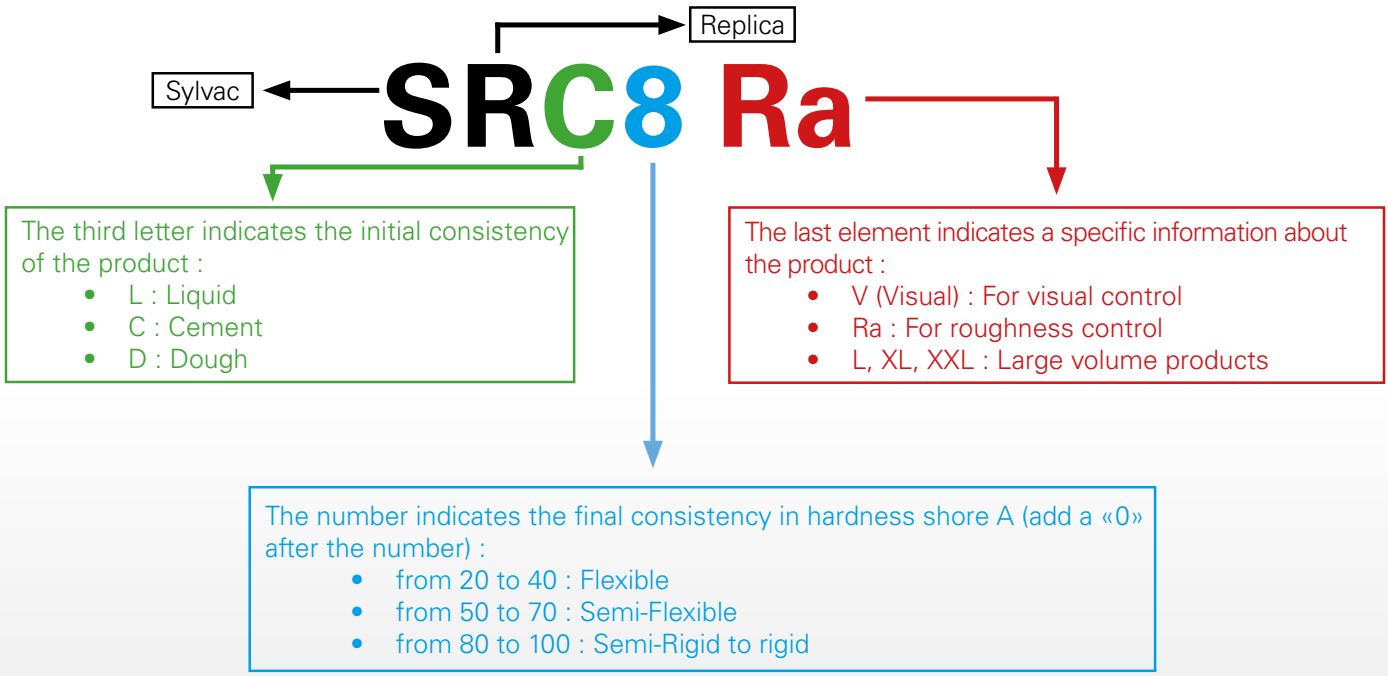
Some PLASTIFORM® products, and more particularly the Re-FORM (infinitely re-usable thermoforming resin), enable these to be achieved easily and efficiently, by providing alternative solutions.

- Create a custom-made fixing platform
- Protect a part from clamping jaws
- Add strength to a fragile part

SRD7 SRF

PRODUCTS

HOW TO UNDERSTAND THE PLASTIFORM® PRODUCTS DESIGNATION



Examples :

SRL2 : Liquid product, print 20 shore A (flexible)
SRC8 Ra : Pasty product (cement), print 80 shore A (semi-rigid), adapted for roughness control Ra
SRD7 : Putty product (dough), print 70 shore A (semi-flexible)

LIQUID PRODUCTS (SRL)

Type	Reference	Color	Description
SRL2	928-2001		2 Cartridges 50ml + 12 Standard Nozzles + 3 Tips
	928-2002		8 Cartridges 50ml + 48 Standard Nozzles + 6 Tips
SRL3V Visual	928-2005		2 Cartridges 50ml + 12 Standard Nozzles + 3 Tips
	928-2006		8 Cartridges 50ml + 48 Standard Nozzles + 6 Tips
SRL5	928-2101		2 Cartridges 50ml + 12 Standard Nozzles + 3 Tips
	928-2102		8 Cartridges 50ml + 48 Standard Nozzles + 6 Tips
SRL8	928-2105		2 Cartridges 50ml + 12 Standard Nozzles + 3 Tips
	928-2106		8 Cartridges 50ml + 48 Standard Nozzles + 6 Tips



PRODUCTS

RE-FORM PRODUCTS (SRF)

Type	Reference	Color	Description
SRF	928-4001		1 bag of 500g



LARGE VOLUMES KITS (SRL KXL)

Type	Reference	Color	Description
Kit SRL2 KXL	928-5001		Kit with 4 Cartridges 400ml + accessories
Kit SRL5 KXL	928-5002		Kit with 4 Cartridges 400ml + accessories
Kit SRL8 KXL	928-5004		Kit with 4 Cartridges 400ml + accessories



COMPLETE KIT

Reference	Description
928-6006	Special Kit for SCAN and VISIO



KIT CONTENT 928-6006

1 manual dispensing gun (928-1001)
1 twin blade cutter 60mmx1mm (928-1009)
1 cutting guide for cutter (928-1010)
50 standard mixer injectors
10 standard white nozzle tips
21 rings for mold removal (928-1008)
1 plastin 250g (928-1201)
1 degreaser DN1 400ml (928-1205)
1 Re-form bag (SRF) 50g (928-4001)
2 cartridges SRL2 (928-2001)
2 cartridges SRL5 (928-2101)
2 cartridges SRC3 (928-2109)
1 cartridge SRL8 (928-2105)
1 tube SRD7 2x45ml (928-7006)



Special kit SCAN & VISIO
928-6006

ACCESSORIES

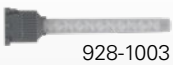
DISPENSING GUNS

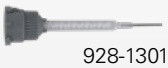

928-1001


928-1207

Reference	Description
928-1001	Manual Dispensing Gun DS53 (for 50 ml cartridges)
928-1002	Pneumatic Dispensing Gun DP50 (for 50 ml cartridges)
928-1207	Manual Dispensing Gun DS 400 (for 400 ml cartridges)
928-1208	Battery Dispensing Gun DB 400 (for 400ml cartridges)
928-1209	Pneumatic Dispensing Gun DS 400 (for 400 ml cartridges)

NOZZLES, TIPS AND RINGS


928-1003


928-1301


928-1305


928-1008

928-1202


928-1212

Reference	Description
928-1003	Pack of 48 Standard Grey Mixer Injectors for Cartridges 50ml
928-1004	Pack of 96 Standard Grey Mixer Injectors for Cartridges 50ml
928-1005	Pack of 192 Standard Grey Mixer Injectors for Cartridges 50ml
928-1301	Pack of 10 Needle Mixer Injectors for Cartridges 50ml (for liquid products only)
928-1302	Pack of 50 Needle Mixer Injectors for Cartridges 50ml (for liquid products only)
928-1303	Pack of 100 Needle Mixer Injectors for Cartridges 50ml (for liquid products only)
928-1304	Pack of 200 Needle Mixer Injectors for Cartridges 50ml (for liquid products only)
928-1305	Pack of 50 Quadro Mixer Injectors (length 12.2cm) for Cartridges 400ml
928-1306	Pack of 100 Quadro Mixer Injectors (length 12.2cm) for Cartridges 400ml
928-1210	Pack of 10 Large Mixer Injectors for Cartridges 400ml
928-1211	Pack of 50 Large Mixer Injectors for Cartridges 400ml
928-1212	Box of 4 different Fill'in (avoid air bubbles in blind holes)
928-1008	Pack of 21 Rings for mould removal
928-1202	Pack of 20 White Nozzles Tips (for standard grey mixer injectors)
928-1203	Pack of 50 White Nozzles Tips (for standard grey mixer injectors)
928-1201	Plastin - technical plasticine (250g)

CUTTERS AND CLEANERS


928-1009



928-1205

Reference	Description
928-1011	Standard Twin Blade Cutter 60mm (1mm space between blades) + Support
928-1101	Special Twin Blade Cutter 60mm (0.5mm space between blades) + Support
928-1102	Special Twin Blade Cutter 60mm (2mm space between blades) + Support
928-1103	Special Twin Blade Cutter 100mm (0.5mm space between blades) + Support
928-1104	Special Twin Blade Cutter 100mm (1mm space between blades) + Support
928-1105	Special Twin Blade Cutter 100mm (2mm space between blades) + Support
928-1106	Special Twin Blade Cutter 200mm (0.5mm space between blades) + Support
928-1107	Special Twin Blade Cutter 200mm (1mm space between blades) + Support
928-1108	Special Twin Blade Cutter 200mm (2mm space between blades) + Support
928-1205	Surface Cleaner DN1 400ml (no air shipment!)
928-1206	Surface Cleaner DN1 1l (no air shipment!)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Plastiform SRC8 Comp. A

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/preparation

Dimensional control by impression

1.3. Details of the supplier of the safety data sheet

Address/Manufacturer

Sylvac SA
Avenue des Sciences 19
1400 Yverdon-les-Bains
Telefon-Nr. +41 21 637 67 57 Information provided Sylvac Département Recherche & Développement
E-mail address of person responsible for this SDS admin@sylvac.ch

1.4. Emergency telephone number

Australia : Poisons Information Centre - Phone number : 131126
Canada : American Association of Poison Control Centers - Phone number : 1-800-222-1222
India : Poison Control Centre - Phone number : +91 98 952 82 388
Japan : Osaka Information Service branch - Phone number : +81 (0)72 727 2499
New Zealand : New Zealand National Poisons Centre - Phone number : 800764766
South Africa : Tygerberg Poison Information Centre - Phone number : +27 (0)861 555 777
United Kingdom : National Poisons Information Service - Phone number : 8448920111
United States Of America : American Association of Poison Control Centers - Phone number : 1-800-222-1222

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

This product is not classified hazardous in accordance with Regulation (EC) No 1272/2008.

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Supplemental information

EUH210 Safety data sheet available on request.

2.3. Other hazards

No special hazards have to be mentioned.

The product contains no PBT substances. The product contains no vPvB substances. This product does not contain a substance that has endocrine disrupting properties with respect to human. The product

does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

SECTION 3: Composition/information on ingredients

Chemical characterization

Addition-vulcanising 2-component silicone

Hazardous ingredients

Cristobalite **# See additional information in section 16**

CAS No. 14464-46-1

EINECS no. 238-455-4

Concentration >= 25 < 50 %

Classification (Regulation (EC) No. 1272/2008)

STOT RE 1 H372

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

No special measures required

After inhalation

Ensure supply of fresh air. In the event of symptoms take medical treatment.

After skin contact

In case of contact with skin wash off with warm water. Consult a doctor if skin irritation persists.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). In case of irritation consult an oculist.

After ingestion

Do not induce vomiting - aspiration hazard. Summon a doctor immediately.

Adhere to personal protective measures when giving first aid

First aider: Pay attention to self-protection!

4.2. Most important symptoms and effects, both acute and delayed

Until now no symptoms known so far.

4.3. Indication of any immediate medical attention and special treatment needed

Hints for the physician / hazards

In the case of swallowing with subsequent vomiting, aspiration of the lungs can occur which can lead to chemical pneumonia or asphyxiation.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Recommended: alcohol resistant foam, CO2, powders, water spray/mist, Extinguishing measures to suit

surroundings

Non suitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

In case of combustion evolution of dangerous gases possible.

5.3. Advice for firefighters

Special protective equipment for fire-fighting

In case of combustion use a suitable breathing apparatus.

Other information

Fire residues and contaminated fire-fighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes and clothing.

6.2. Environmental precautions

Do not allow to enter drains or waterways.

6.3. Methods and material for containment and cleaning up

Pick up mechanically. Clean contaminated floors and objects thoroughly, observing environmental regulations.

6.4. Reference to other sections

Refer to protective measures listed in Sections 7 and 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Observe the usual precautions for handling chemicals. For personal protection see Section 8.

Advice on protection against fire and explosion

No special measures required.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Store product in closed containers.

Hints on storage assembly

Do not store together with foodstuffs.

Further information on storage conditions

Keep container tightly closed and dry.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Other information

Contains no substances with occupational exposure limit values.

8.2. Exposure controls

General protective and hygiene measures

Observe the usual precautions for handling chemicals. Do not eat, drink or smoke during work time. Wash hands before breaks and after work. Avoid contact with eyes.

Respiratory protection

Not necessary.

Hand protection

Not necessary.

Eye protection

Not necessary.

Body protection

Clothing as usual in the chemical industry.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Viscous		
Colour	white		
Odour	characteristic		
Melting point			
Remarks	not determined		
Freezing point			
Remarks	not determined		
Boiling point or initial boiling point and boiling range			
Value	>	300	°C
Flammability			
evaluation	not determined		
Upper and lower explosive limits			
Remarks	not determined		
Flash point			
Value	>	130	°C
Method	closed cup		
Auto-ignition temperature			
Remarks	not determined		
Decomposition temperature			
Remarks	not determined		
pH value			
Remarks	not determined		
Viscosity			
Remarks	not determined		
Solubility(ies)			

Acute oral toxicity
Remarks: Based on available data, the classification criteria are not met.

Acute dermal toxicity
Remarks: Based on available data, the classification criteria are not met.

Acute inhalational toxicity
Remarks: Based on available data, the classification criteria are not met.

Skin corrosion/irritation
Remarks: Based on available data, the classification criteria are not met.

Serious eye damage/irritation
Remarks: Based on available data, the classification criteria are not met.

Sensitization
Remarks: Based on available data, the classification criteria are not met.

Subacute, subchronic, chronic toxicity
Remarks: not determined

Mutagenicity
Remarks: Based on available data, the classification criteria are not met.

Reproductive toxicity
Remarks: Based on available data, the classification criteria are not met.

Carcinogenicity
Remarks: Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity (STOT)

Single exposure
Remarks: Based on available data, the classification criteria are not met.

Repeated exposure
Remarks: Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) (Components)

Cristobalite

Repeated exposure
evaluation: Causes damage to organs through prolonged or repeated exposure
Route of exposure inhalative

Aspiration hazard
Based on available data, the classification criteria are not met.

11.2. Information on other hazards

Endocrine disrupting properties with respect to humans
The product does not contain a substance that has endocrine disrupting properties with respect to humans.

Other information
No toxicological data are available.

SECTION 12: Ecological information

12.1. Toxicity

General information
not determined

12.2. Persistence and degradability

General information

not determined

12.3. Bioaccumulative potential

General information

not determined

Partition coefficient n-octanol/water (log value)

Remarks not determined

12.4. Mobility in soil

General information

not determined

12.5. Results of PBT and vPvB assessment

General information

not determined

Results of PBT and vPvB assessment

The product contains no PBT substances

The product contains no vPvB substances.

12.6 Endocrine disrupting properties

Endocrine disrupting properties with respect to the envrionment

The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects

General information

not determined

General information / ecology

Do not allow to enter soil, waterways or waste water canal. Avoid release into the atmosphere.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations for the product

Must not be disposed together with household garbage.

Dispose of waste according to applicable legislation.

Disposal recommendations for packaging

Packaging that cannot be cleaned should be disposed off in agreement with the regional waste disposal company.

SECTION 14: Transport information

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
14.1. UN number or ID number	The product does not constitute a hazardous substance in land transport.	The product does not constitute a hazardous substance in sea transport.	The product does not constitute a hazardous substance in air transport.
14.2. UN proper shipping name	-	-	-
14.3. Transport hazard class(es)		-	-
Label			
14.4. Packing group		-	-

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Other information

All components are contained in the TSCA inventory or exempted.

15.2. Chemical safety assessment

For this preparation a chemical safety assessment has not been carried out.

SECTION 16: Other information

Hazard statements listed in Chapter 2/3

H372 Causes damage to organs through prolonged or repeated exposure.

CLP categories listed in Chapter 2/3

STOT RE 1 Specific target organ toxicity - repeated exposure, Category 1

Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: ***
This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.

In accordance with legal regulations (REACH), hazardous substances contained in our produts must be mentioned in section 3 or section 8. However, these substances only present a potential hazard in their original form, e.g. cristobalite, which can be inhaled.
Embedded in a silicone matrix, these substances are not longer powdery, liquid, etc and do not present a hazard in the sense of their original classification. Our silicone products are therefore not classified as hazardous substances.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Plastiform SRC8 Comp. B

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/preparation

Dimensional control by impression

1.3. Details of the supplier of the safety data sheet

Address/Manufacturer

Sylvac SA
Avenue des Sciences 19
1400 Yverdon-les-Bains
Telefon-Nr. +41 21 637 67 57 Information provided Sylvac Département Recherche & Développement
E-mail address of person responsible for this SDS admin@sylvac.ch

1.4. Emergency telephone number

Australia : Poisons Information Centre - Phone number : 131126
Canada : American Association of Poison Control Centers - Phone number : 1-800-222-1222
India : Poison Control Centre - Phone number : +91 98 952 82 388
Japan : Osaka Information Service branch - Phone number : +81 (0)72 727 2499
New Zealand : New Zealand National Poisons Centre - Phone number : 800764766
South Africa : Tygerberg Poison Information Centre - Phone number : +27 (0)861 555 777
United Kingdom : National Poisons Information Service - Phone number : 8448920111
United States Of America : American Association of Poison Control Centers - Phone number : 1-800-222-1222

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

This product is not classified hazardous in accordance with Regulation (EC) No 1272/2008.

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Supplemental information

EUH210 Safety data sheet available on request.

2.3. Other hazards

No special hazards have to be mentioned.

The product contains no PBT substances. The product contains no vPvB substances. This product does not contain a substance that has endocrine disrupting properties with respect to human. The product

does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

SECTION 3: Composition/information on ingredients

Chemical characterization

Addition-vulcanising 2-component silicone

Hazardous ingredients

 # See additional information in section 16

Cristobalite

CAS No.	14464-46-1				
EINECS no.	238-455-4				
Concentration	>=	25	<	50	%

Classification (Regulation (EC) No. 1272/2008)

STOT RE 1 H372

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

No special measures required

After inhalation

Ensure supply of fresh air. In the event of symptoms take medical treatment.

After skin contact

In case of contact with skin wash off with warm water. Consult a doctor if skin irritation persists.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). In case of irritation consult an oculist.

After ingestion

Do not induce vomiting - aspiration hazard. Summon a doctor immediately.

Adhere to personal protective measures when giving first aid

First aider: Pay attention to self-protection!

4.2. Most important symptoms and effects, both acute and delayed

Until now no symptoms known so far.

4.3. Indication of any immediate medical attention and special treatment needed

Hints for the physician / hazards

In the case of swallowing with subsequent vomiting, aspiration of the lungs can occur which can lead to chemical pneumonia or asphyxiation.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Recommended: alcohol resistant foam, CO2, powders, water spray/mist, Extinguishing measures to suit

surroundings

Non suitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

In case of combustion evolution of dangerous gases possible.

5.3. Advice for firefighters

Special protective equipment for fire-fighting

In case of combustion use a suitable breathing apparatus.

Other information

Fire residues and contaminated fire-fighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes and clothing.

6.2. Environmental precautions

Do not allow to enter drains or waterways.

6.3. Methods and material for containment and cleaning up

Pick up mechanically. Clean contaminated floors and objects thoroughly, observing environmental regulations.

6.4. Reference to other sections

Refer to protective measures listed in Sections 7 and 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Observe the usual precautions for handling chemicals. For personal protection see Section 8.

Advice on protection against fire and explosion

No special measures required.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Store product in closed containers.

Hints on storage assembly

Do not store together with foodstuffs.

Further information on storage conditions

Keep container tightly closed and dry.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Other information

Contains no substances with occupational exposure limit values.

8.2. Exposure controls

General protective and hygiene measures

Observe the usual precautions for handling chemicals. Do not eat, drink or smoke during work time. Wash hands before breaks and after work. Avoid contact with eyes.

Respiratory protection

Not necessary.

Hand protection

Not necessary.

Eye protection

Not necessary.

Body protection

Clothing as usual in the chemical industry.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Viscous		
Colour	blue		
Odour	characteristic		
Melting point			
Remarks	not determined		
Freezing point			
Remarks	not determined		
Boiling point or initial boiling point and boiling range			
Value	>	300	°C
Flammability			
evaluation	not determined		
Upper and lower explosive limits			
Remarks	not determined		
Flash point			
Value	>	130	°C
Method	closed cup		
Auto-ignition temperature			
Remarks	not determined		
Decomposition temperature			
Remarks	not determined		
pH value			
Remarks	not determined		
Viscosity			
Remarks	not determined		
Solubility(ies)			

Acute oral toxicity
Remarks: Based on available data, the classification criteria are not met.

Acute dermal toxicity
Remarks: Based on available data, the classification criteria are not met.

Acute inhalational toxicity
Remarks: Based on available data, the classification criteria are not met.

Skin corrosion/irritation
Remarks: Based on available data, the classification criteria are not met.

Serious eye damage/irritation
Remarks: Based on available data, the classification criteria are not met.

Sensitization
Remarks: Based on available data, the classification criteria are not met.

Subacute, subchronic, chronic toxicity
Remarks: not determined

Mutagenicity
Remarks: Based on available data, the classification criteria are not met.

Reproductive toxicity
Remarks: Based on available data, the classification criteria are not met.

Carcinogenicity
Remarks: Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity (STOT)

Single exposure
Remarks: Based on available data, the classification criteria are not met.

Repeated exposure
Remarks: Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) (Components)

Cristobalite

Repeated exposure
evaluation: Causes damage to organs through prolonged or repeated exposure
Route of exposure inhalative

Aspiration hazard
Based on available data, the classification criteria are not met.

11.2. Information on other hazards

Endocrine disrupting properties with respect to humans
The product does not contain a substance that has endocrine disrupting properties with respect to humans.

Other information
No toxicological data are available.

SECTION 12: Ecological information

12.1. Toxicity

General information
not determined

12.2. Persistence and degradability

General information

not determined

12.3. Bioaccumulative potential

General information

not determined

Partition coefficient n-octanol/water (log value)

Remarks not determined

12.4. Mobility in soil

General information

not determined

12.5. Results of PBT and vPvB assessment

General information

not determined

Results of PBT and vPvB assessment

The product contains no PBT substances

The product contains no vPvB substances.

12.6 Endocrine disrupting properties

Endocrine disrupting properties with respect to the envrionment

The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects

General information

not determined

General information / ecology

Do not allow to enter soil, waterways or waste water canal. Avoid release into the atmosphere.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations for the product

Must not be disposed together with household garbage.

Dispose of waste according to applicable legislation.

Disposal recommendations for packaging

Packaging that cannot be cleaned should be disposed off in agreement with the regional waste disposal company.

SECTION 14: Transport information

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
14.1. UN number or ID number	The product does not constitute a hazardous substance in land transport.	The product does not constitute a hazardous substance in sea transport.	The product does not constitute a hazardous substance in air transport.
14.2. UN proper shipping name	-	-	-
14.3. Transport hazard class(es)		-	-
Label			
14.4. Packing group		-	-

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Other information

All components are contained in the TSCA inventory or exempted.

15.2. Chemical safety assessment

For this preparation a chemical safety assessment has not been carried out.

SECTION 16: Other information

Hazard statements listed in Chapter 2/3

H372 Causes damage to organs through prolonged or repeated exposure.

CLP categories listed in Chapter 2/3

STOT RE 1 Specific target organ toxicity - repeated exposure, Category 1

Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: ***
This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.

In accordance with legal regulations (REACH), hazardous substances contained in our produts must be mentioned in section 3 or section 8. However, these substances only present a potential hazard in their original form, e.g. cristobalite, which can be inhaled.
Embedded in a silicone matrix, these substances are not longer powdery, liquid, etc and do not present a hazard in the sense of their original classification. Our silicone products are therefore not classified as hazardous substances.