

USER GUIDE

SELF CURING REGULAR SET / SELF CURING SLOW SET

Self Curing Regular: ID# HDASQP & Self Curing Slow ID# HDASCP / Self Curing Liquid: ID#HDASCV



User guide contents:

	p.		p.
Preface	1	9. Plastic mix ratio	2
1. Introduction	1	10. Mixing plastic	2
2. Description and effect	1	11. Applying plastic	2
3. Counter-indication	1	12. Polymerising plastic	2
4. Risk and safety (R + S) phrases for monomer	1	13. Finishing plastic	2
5. Storage conditions, use-by date and transportation	1	14. Trouble-shooting	2
6. Pre-treating prosthesis elements	1	15. Plastic and packaging waste	2
7. Pre-treating prosthesis parts	1	16. Instructions for cleaning prosthesis	2
8. Treating times for plastic in plastic phase	1	Manufacturer	2

Preface

The following user guide contains instructions for dental technicians for treating Self Curing Regular Set/ Self Curing Slow Set for expanding or repairing a dental prosthesis base. Self Curing Regular Set/ Self Curing Slow Set plastic is intended exclusively for professional dental work. Self Curing Regular Set/ Self Curing Slow Set is treated using conventional dental methods and instruments. The user guide describes safety and environmental aspects regarding the monomer. A safety data sheet for the monomer is indicated on the www.udscanada.com web site and is available from local dealers. The user guide indicates transferable instructions for the prosthesis wearer on cleaning the prosthesis.

1. Introduction

Self Curing Regular Set/ Self Curing Slow Set is used for dental prostheses using the plastic filling technique, based on polymethylmethacrylate. Examples are full and partial prostheses. The technical instructions we provide in this guide should be followed closely by the user. Deviations from these instructions, no matter how minor, may have a negative effect on the intended result and will not guarantee the quality of the result.

2. Description and effect

Self Curing Regular Set/ Self Curing Slow Set is a 2-component plastic system. The plastic system is formed by a polymer and a monomer. The polymer is a powder, the monomer a fluid. The polymer is the colour component, the monomer is colourless. The polymer is available in 2 versions: Self Curing and Self Curing Quick Set. The Self Curing Quick Set version quickly forms a dough and is particularly suited for expanding a prosthesis. The monomer is available as Self Curing only. The combination of polymer and monomer is converted into a hard finished product by a self-initiating (chemical) process that is accelerated by added heat. The finished product has a Charpy impact strength of ± 9.8 kJ/m² (unnotched), a flexural strength of ± 64 MPa and a flexural modulus of ± 2028 Mpa. After treatment in accordance with the user guide, the finished product contains an initial monomer residue of < 3.5 %. Self Curing Regular Set/ Self Curing Slow Set complies with ISO 20795-1 and is CE-certified.

3. Counter-indication

Allergic reactions in wearers to dental prosthesis base plastic are rare. Monomer or additive remnants in the prosthesis base are reduced as much as possible by correct treatment of the plastic. Deviation from the indicated treatment has a negative effect on the chemical and physical quality of the base plastic. Ask a physician for a diagnosis in the event of an allergic reaction.

4. Risk and safety (R + S) phrases for monomer

Monomer contains methylmethacrylate: • Highly flammable. • Irritating to eyes, respiratory system and skin. • May cause sensitisation by skin contact. • Keep out of reach of children. • Keep container in a well-ventilated place. • Keep away from sources of ignition – no smoking-. • Do not breathe vapour. • Avoid contact with skin. • Do not empty into drains. • Take precautionary measures against static discharges. • Wear suitable gloves. • If swallowed, seek medical advice immediately and show this container or label.

5. Storage conditions, use-by date and transportation

Store the monomer in a cool, dark environment. Store the polymer in a cool, dry environment. Close the packaging properly after each use. The plastic components have a use-by date indicated on the product label. After the use-by date, the plastic components are no longer guaranteed in terms of treatment. Transportation of monomer is restricted by regulations on transporting hazardous materials. Polymer can be freely transported.

6. Pre-treating prosthesis elements

Roughen the base side of plastic prosthesis elements before setting them up. Treat the base side of hard plastic prosthesis elements additionally with monomer or a contact fluid (e.g., Acrybond).

7. Pre-treating prosthesis parts

Make a plaster model to fix the prosthesis parts. Remove the prosthesis parts from the plaster model. Insulate the plaster with alginate separation fluid (e.g., Divosep). Roughen the prosthesis surface in the immediate vicinity of the expansion or fracture. Re-place the prosthesis parts on the plaster model and fix the parts.

USER GUIDE
SELF CURING REGULAR SET / SELF CURING SLOW SET
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(continued)

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8. Treating times for plastic in plastic phase

The following mixing, dough and dough working times apply for a material and ambient temperature of 22°C. A lower or higher temperature will have a delaying or accelerating effect, respectively, on the following times.

mixing time: 20 seconds	Self Curing dough time: 8 minutes / Self Curing Regular Set dough time: 5 minutes	Self Curing dough working time: 5 minutes / Self Curing Regular Set dough working time: 4 minutes
▶ plastic treating time is 9 - 13 minutes ◀		

9. Plastic mix ratio

volume : 1 ml monomer / 2.5 ml polymer
weight : 0.95 g monomer / 1.7 g polymer

Determine the monomer dose by volume and the polymer dose by weight. These methods of determining doses are the most accurate for the two different components.

10. Mixing plastic

- Precautions: wear personal protective gear, avoid contact of monomer with skin, extract monomer vapour. – Use a sealable bowl made of chemical-resistant plastic, ceramic, porcelain, glass or stainless steel to mix the components. Shake monomer before use. Measure both components in proportion. Pour the monomer into the bowl first and the polymer second. Mix the monomer and polymer powder gently for 20 seconds. Seal the bowl and let the mixture rest for 5 - 8 minutes. The mixture will have reached the dough stage at the end of the rest period.

11. Applying plastic

- Precaution: wear polyethylene or powder-free latex gloves. - Make sure the prosthesis surface is free of dust and grease. Brush a small quantity of monomer or contact medium onto the prosthesis surface. Take the plastic dough out of the mixing bowl and apply it to the prosthesis parts. Keep the plaster model in the same position until the plastic stops running out of its position. Let the plastic rest until the surface of the plastic applied loses most of its liquid gloss and a film forms. Polymerise the plastic on the plaster model in the pressure pan. The total treating time for Self Curing / Self Curing Quick Set dough is 4 - 5 minutes.

12. Polymerising plastic

Fill the pressure pan with hot water. Keep the water in the pan at a constant 50 ± 5°C. Place the plaster model with the prosthesis and plastic in the pressure pan. Close the pan and set it to a pressure of 2½ bar. Let the prosthesis polymerise in the pressure pan for 10 minutes, then open the pressure pan, take out the plaster model with the prosthesis and remove the prosthesis from the plaster model.

start in water at 50 ± 5°C	10 minutes at 50 ± 5°C
▶ polymerisation time is 10 minutes ◀	

13. Finishing plastic

Finish the plastic with milling, sanding, grinding and polishing instruments. Carry out the actions in gradation from coarse to fine.

14. Trouble-shooting

Phenomenon	Possible cause	Solution
- plastic is porous	- high monomer dose - short dough time - large volume of plastic - insufficient pressure on plastic - dry plaster	- reduce monomer dose - increase dough time - interrupt heat supply - check pressure build-up - saturate plaster with sufficient water
- plaster remnants on plastic	- high monomer dose - short dough time - defects in separation layer	- reduce monomer dose - increase dough time - improve separation method
- whitening of plastic after finishing	- high monomer dose - short dough time - defects in separation layer - talc from gloves - low water temperature in pressure pan	- reduce monomer dose - increase dough time - improve separation method - wash talc off gloves - bring water temperature in the pressure pan to the prescribed value
- excessive shrinkage / blackening around prosthesis elements	- high monomer dose - short dough time	- reduce monomer dose - increase dough time
- insufficient adhesion of plastic to prosthesis elements	- hard elements (e.g., composite) - brief contact between element and plastic in plastic phase	- roughen base side of element - use contact fluid
- plastic turns white after a period of wearing	- incorrect prosthesis cleaning method	- instruct wearer on correct prosthesis cleaning method

Differences in colour nuance may occur due to production in batches of the raw material and product. Different mixing proportions of monomer and polymer also cause colour differences in the final results.

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(continued)



15. Plastic and packaging waste

Treat monomer remnants and empty monomer packaging as chemical waste. Polymer remnants and polymer packaging are not environmentally harmful. Deliver plastic and packaging waste to a collection point for waste material.

16. Instructions for cleaning prosthesis

Instruct the prosthesis wearer directly or indirectly to clean the prosthesis twice a day with cold water, mild soap and a soft brush. If a prosthesis cleaner is used (preferably one with a natural basis), instruct the wearer to follow closely the instructions for the cleaner. Discourage the use of hot water and unsuitable cleaners or methods as these will cause irreversible damage to the prosthesis.

Distributor

Unique Dental Supply Inc. | 1-888-532-0554 | www.udscanada.com

Manufacturer

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Explanation of symbols on labelling

: Notified Body ; SGS United Kingdom

: Batch number of product

: Manufacturer

: Temperature

: Keep away from sunlight

: Consult instructions for use

: Use-by date

: Keep away from moisture