

FLEXIL S Catalyst Variable Cure Rates

1. CURE RATES

By combining the Flexil-S catalysts you have the ability to alter the cure rates to your exact requirement.

Catalyst (S & F)	Pot Life (minutes)	Tack Free (hours)	Demould (hours)
Cat S Green	30-90	3-6	6-10
Cat F Yellow	5-15	0.3-0.5	1-3

Note: These times are only approximate. Pot life or the working life of the catalysed rubbers depends on the catalyst and the environmental conditions such as relative humidity and temperature.

2. VARIABLE CURE RATES

By combining different mix ratios of Catalyst S (green) and Catalyst F (yellow) it is possible to alter the rates of cure of your silicone, as during very humid conditions Catalyst F (yellow) may be too fast and Catalyst S (green) may be too slow during cold wintry conditions.

The table below indicates a guide only to possible mix ratios and cure rates and should NOT be used as a specification. The results shown have come from studies based on several batches of each type of silicone in the Flexil-S range of rubber.

Cat S (Green) Cat F (Yellow) Ratio	Silicone to Catalyst	Pot Life (minutes)	Tack Free Time (hours)	Demould Time (hours)
5:0	100 - 5	30 - 90	1.5 - 5	3.5 - 7
4:1	100 - 5	25 - 60	1.25 - 3	3 - 6
3:2	100 - 5	20 - 40	1 - 2.5	2 - 5
2:3	100 - 5	15 - 25	0.75 - 1.5	1.5 - 3
1:4	100 - 5	10 - 20	0.5 - 0.75	1 - 2.5
0:5	100 - 5	5 - 15	0.3 - 0.5	1 - 2

3. METHOD FOR MIXING

Decide upon the required mix ratio after conducting small scale trials. Then mix the relevant catalysts together in a clean pot or bottle, this should be done on a weight to weight basis. Weigh out the correct amount of the base silicone and add the correct amount of catalyst to the mixture and mix under normal procedures.

Degassing of the mixture can only be achieved if the pot life of your mixture allows.

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4. ACCELERATOR NO.1

Alternatively you can use Accelerator No.1 to speed up the cure of your silicone base. A guide to its use is detailed below:

Flexil-S Base:	100 parts
Cat S Green:	5 parts
Accelerator No.1:	2 parts
Pot Life:	20 mins
Demould:	2-3 hours

IMPORTANT:

Catalyst F (yellow) the fast catalyst should only be used where speed is of the essence i.e. mould life is not a criteria, as the cured rubber will have a shorter life. To obtain the optimum life for your moulds Catalyst S (green) should always be used.

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d) ADDITIVES:

Accelerator No. 1 may be used to shorten a cure time where large amounts of softener/fluid have been added to RTV C204.

Additive HTC (Clear) when added to a mixture of RTV C204 and catalyst 81B, will make a mixture applicable by a pallet knife or brush. Initial levels should begin at 2-4%. Where large amounts of softener/fluid have been added, the amount of HTC clear should be increased until the desired effect is achieved. (No more than 10%)

5. PACKING

Available in 100gms to 5kg.

6. HEALTH & SAFETY

(Refer to Health & Safety Data Sheet)

Handling and mixing of Silicone Softener requires the following precautions:

- i. Wear gloves & goggles
- ii. Do not eat, drink or smoke.
- iii. Avoid swallowing or skin or eye contact.
- iv. If contact does occur, wash with clean water immediately and in the case of eye contact, consult a doctor.

7. SHELF LIFE

Silicone Softener has a minimum shelf life of six months when stored in the original containers at temperatures between 18 and 25°C.

Some setting out may occur after long term storage. This can be remedied by blending.

Note: If allowed to freeze the RTV will be spoilt. If allowed to be heated by excessive temperatures, gel times will be substantially shortened.

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