Fast-Cure Silicones for Long-Term Implants

NuSil's fast-cure silicones MED2-4420, MED3-4420, and MED4-4420 are uniquely designed to cure rapidly at room or body temperature. These versatile low consistency elastomers (LCEs) may be considered for use in long-term implantable medical devices as well as for topical use.

MED2-4420, MED3-4420, and MED4-4420 are two-part, platinum catalyzed, addition cure silicone systems. As fast-cure materials, these cure in less than 24 hours at room temperature. Unlike acetoxy and oxime cure systems, addition cure silicones do not require moisture to cure or release any byproducts or corrosive leaving groups. The cure profile of MED2-4420, MED3-4420, and MED4-4420 also makes them especially valuable for use in medical device assembly in which temperature-sensitive components are present.

The rheometry charts below display typical Scorch Time and T90 for these materials at ambient temperature (25°C) and body temperature (37°C).

PST's and NuSil's fast-cure silicones MED2-4420, MED3-4420, and MED4-4420 are uniquely designed to cure rapidly at room or body temperature. These versatile low consistency elastomers (LCEs) may be considered for use in long-term implantable medical devices as well as for topical use.

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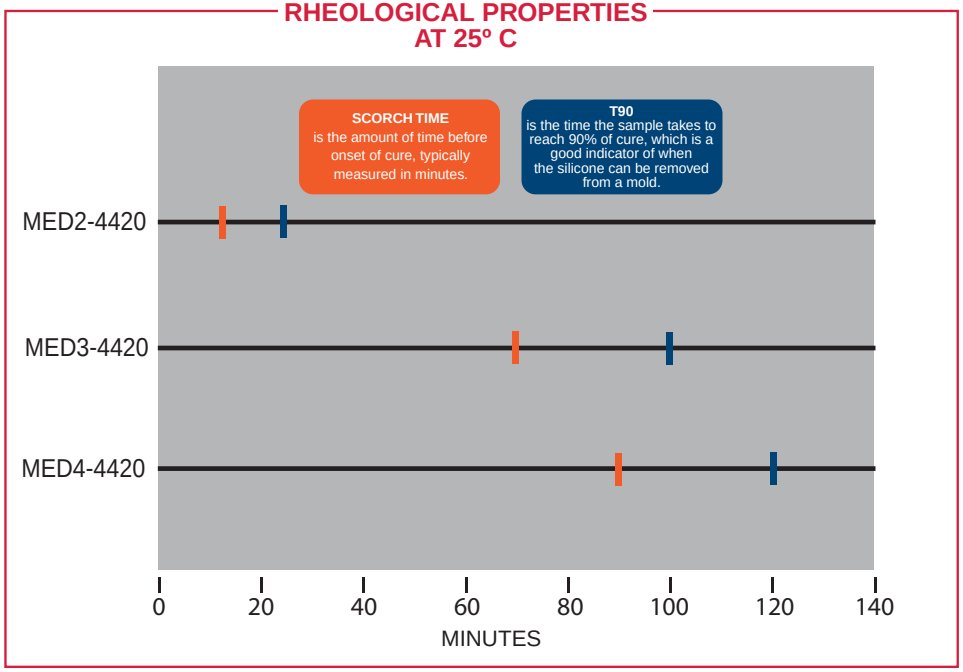

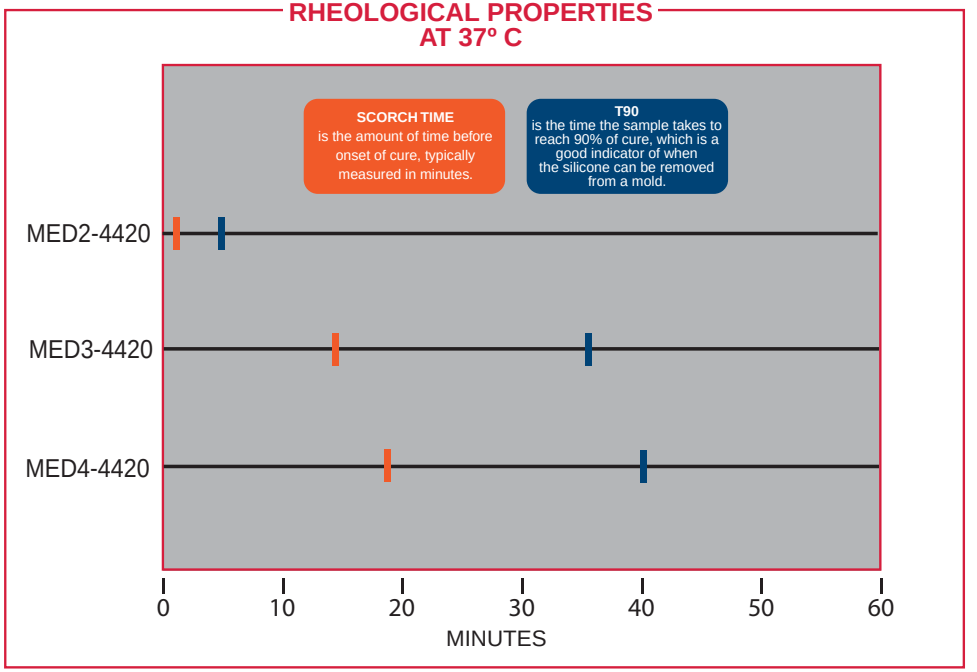

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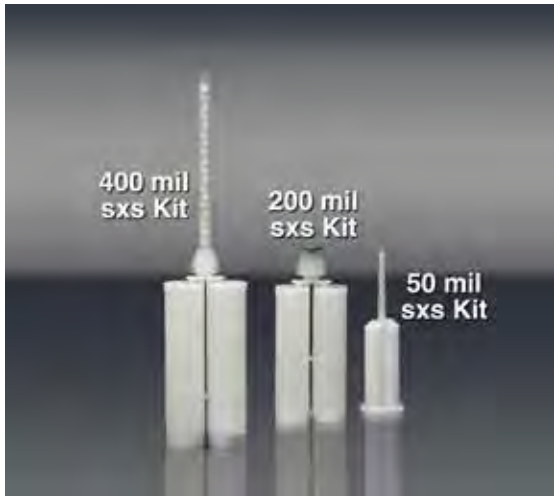
MED2-4420, MED3-4420, and MED4-4420 are available in various sizes of side-by-side kits or drums. Packaging configurations are shown in the photos below for these 1:1 mix ratio, fast-cure silicones for medical implants.

Product Name	Viscosity cp & mPas	Work Time	Durometer Type A	Tensile Strength psi (Mpa)
MED2-4420	Part A: 20,000 Part B: 16,000	3 minutes	20	550 (3.8)
MED3-4420	Part A: 80,000 Part B: 65,000	15 minutes	25	1,100 (7.6)
MED4-4420	Part A: 23,000 Part B: 18,000	25 minutes	17	645 (4.4)



** Packaging options can vary, and are subject to change without notification. Please contact NuSil Technology for more information.*

Each of NuSil's unrestricted silicones for medical implant applications is supported with extensive biocompatibility testing conforming to USP and select ISO-10993 testing requirements. Customers interested in authorization to reference the MAFs must contact NuSil directly.

Polymer Systems Technology Limited

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