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**The Silicone Thermoplastic Sheeting Face Mask:
Facial Scar Mediators of the Future.**

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The Silicone Thermoplastic Sheeting Face Mask: Facial Scar Mediators of the Future.¹

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Facial burn scarring requires early and consistent management to avoid long term complications of scar hypertrophy and facial deviations, such as complicated scar contractures. These complications impact the cosmetic and functional outcome as well as the psychosocial adjustment and self-image perception post burn. Present rehabilitation management techniques for scar management of facial burns include gradient pressure garments, range of motion exercises, scar massage, rigid or dynamic splints and custom molded clear plastic facemasks.

Silicone Gel Sheeting (SGS) has been more recently utilized in conjunction with scar treatment and has been demonstrated to enhance both the scar extensibility and cosmesis in conjunction with garments, splints or other scar management devices. However, the traditional use of silicone gel sheeting with a facial injury usually has significant flaws including inability to contour to the unique architecture of the face and increased potential for maceration due to the thickness of the material offerings. Moreover, complete lack of transparency of these materials further complicates the patient's psychological well being which compromises compliance and ultimately efficacy of long term treatment intervention.

A new material has been recently developed that significantly enhances both the compliance and treatment management of the transparent facemask. A patented silicone bonded high temperature thermoplastic material (Silon- STS[®]) effectively replaces the use of un-bonded conventional clear thermoplastics. This material has the same clinical characteristics as conventional thermoplastics with the added benefit of full contact silicone allowing for delicate areas of the eyes, nostrils and mouth to have a comfortable edge when shaped and molded for the face. This material allows the inner surface of the thermoplastic to be in direct contact with the facial surface of the burn scar hypertrophy further prodding optimal skin and scar hydration. Advantages of this silicone lined high temperature thermoplastic include increased contact; increased comfort; increased skin and scar hydration and decreased skin maceration – all of which significantly contribute to patient compliance and optimal outcome for facially injured patients. This material will also aid the burn therapist in creating a more effective and comprehensive device to manage facial scarring.

¹ [abstract] In: Proceedings of the 18th Annual Mid-Atlantic Region Burn Conference 1995; Nov 5-6; Philadelphia, PA, p.28.