

INTRODUCTION

This technical bulletin addresses the specific use and application of the three primary types of sealants used in the installation of AEP Span steel roof and wall products.

NON-SKINNING/NON-CURING BUTYL SEALANT

These types of sealants are used purposely in metal roofing and siding applications because panel joints and laps create a very thin space between the materials that are subject to continual dynamic movements which will subject the sealant to shear force. Only a non-skinning, non-curing sealant can perform under such extreme conditions as these types of sealant will never cure or harden over the life of the roof or siding.

Butyl sealants should only be used where dynamic movement of the material will take place due to thermal expansion and contraction and are not subjected to exposure to ultra violet light. UV light will break down these types of sealants overtime making them impractical in exposed applications.

Recommended sealants in this group include, but are not limited to, the following:

- PTI® 707
- SikaLastomer®-511
- Pecora® BA-98
- TremPro® JS-773
- Acryl-R® SM5430

EXTRUDED BUTYL TAPE

These types of sealants are used in a similar fashion to the non-skinning/non-curing sealants as butyl tape will never cure or harden over its lifetime. Butyl tapes main use is for high infiltration areas such as under the joggle cleat at the eave or valley condition or in areas where a continuous aggressive bead of sealant is recommended such as used to seal the top and bottom of the zee closures on ridge or peak condition.

Butyl tape is also recommended at the side lap condition of through-fastened (corrugated) panels due to the fact that gun grade sealants are impractical and messy to apply in a thick continuous bead. Like nonskinning/non-curing sealants, Butyl tape should never be used in applications that are subjected to UV exposure. UV light will break down the sealant overtime. Varying sizes of butyl tape are available in the market. The following sizes are available from AEP Span.

Please consult the appropriate panel installation guide or AEP Span representative for appropriate size recommendations.

- $\frac{3}{32}$ " thick x $\frac{3}{8}$ " wide
- $\frac{1}{16}$ " thick x $\frac{1}{2}$ " wide
- $\frac{1}{16}$ " thick x $\frac{1}{4}$ " wide
- $\frac{1}{8}$ " thick x 1" wide
- $\frac{3}{16}$ " thick x $\frac{7}{8}$ " wide

CURING SEALANTS

This group of sealants fall into two categories, Urethane and Siliconized. These types of sealants require a specific mass of material, cures relatively hard, and will easily fail when subjected to shear and dynamic forces. AEP Span recommends urethane and siliconized sealant only for non-moving joinery and perimeter seals that are exposed to sunlight and require a curing UV resistant sealant.

It should be noted that although these sealant are recommended for use on AEP Span roof and wall products their use should be limited, as most of AEP Span details utilize concealed gun grade Non-skinning/Non-curing butyl sealants or butyl tape sealants.

Recommended sealants in this group include, but are not limited to, the following:

Urethane Sealant

- MasterSeal® NP 1™
- Sikaflex®-201 US
- Sikaflex®-1a
- Dynatrol® I-XL
- Dymonic® FC

Siliconized Sealant

- Dow Corning® 795 Silicone Building Sealant
- Titebond® Weathermaster® Metal Roof Sealant

All of the sealants listed in this letter have specific uses and applications. Please consult our Technical Department or AEP Span Representative for questions concerning specific use and applications or if a sealant not listed needs to be reviewed for use on AEP Span supplied materials.

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