



TC-417-GP Thermal and Acoustic Solutions

Spray Applied Insulation

SECTION 07210

USAGE:

a) TC-417 GP USAGE ON SOFFITS AND PARKING GARAGE CEILINGS

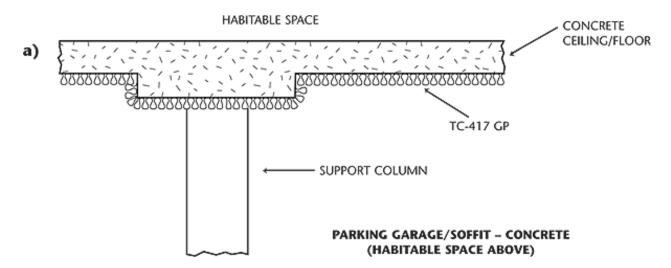
In relatively temperate and somewhat warmer climates, parking garages under habitable space are rarely completely closed in and fully conditioned. They are sometimes devoid of complete exterior walls with pillars being used to support the upper structure, and utilising grillwork entry gates rather than doors.

Concrete parking garage ceilings (see diagram a) this sheet) provide a strong challenge to the design professional intent on insulating them effectively. Their surface is often penetrated by service pipes and ducts, which run tight, or in close proximity to, the ceiling surface. In addition, they are broken by frequent columns and beams needed to support the building.

Given the foregoing, the most practical method of insulating them is by the use of a high efficiency spray-in-place thermal material. **TC-417 GP** is ideal for the purpose.

When in place it provides a monolithic blanket that is **non-combustible**, has a **low flame spread rating** and has the highest R (RSI) value ($\mathbf{R} = 4.17/\text{inch}$; $\mathbf{RSI} = 0.73/25\text{mm}$) of the sprayed fibre products. In addition, **TC-417 GP** can be applied to a thickness of 5"/125mm to an horizontal surface producing a **rating** > **R20/RSI3.65**.

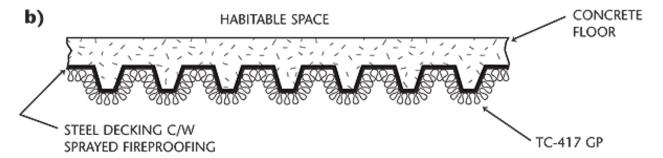
In fact, **TC-417 GP** works very effectively with any complex substrate.



Note: TC-417 GP is equally effective when used on waffle ceilings and all precast profiles.

Generally speaking, parking garage ceilings comprised of steel decking with concrete topping produce a greater insulation challenge (see diagram b) this sheet):

- The corrugated profile of the decking provides a difficult surface to cover;
- The underside of the steel decking must be treated with fireproofing to achieve the desired rating. As the deck becomes a 'fire rated' assembly, it cannot, theoretically, be covered by any insulating material that might compromise the rating;
- Addition of fireproofing to the decking does not improve the profile, so it remains virtually impossible to insulate effectively except by use of a spray product.

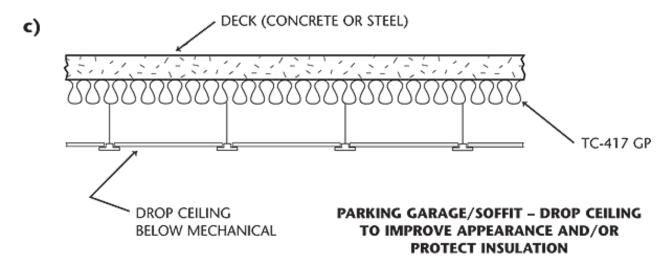


PARKING GARAGE/SOFFIT – STEEL – FIRE RATED ASSEMBLY (HABITABLE SPACE ABOVE)

Again, TC-417 GP which eliminates voids at the substrate and forms a monolithic, non-combustible installation is the sensible choice.

In some garage and soffit applications, a drop ceiling may be desirable to protect the piping, ductwork, etc., and insulation from damage, or for esthetic reasons (see diagram c) this sheet).

Provision of a drop ceiling, either permanent or removable, does not impair the performance of **TC-417 GP**.



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