

Thermolastic Insulation System (Fitting Instructions)

Saveguard Thermolastic Tape has been specially developed to provide a highly efficient insulation medium in a simple to fit format. The product consists of a high temperature glass fibre textile bonded to a metal foil facing to provide a flexible tape with the elastic properties required to provide a snug fit and to accommodate bends.

Thermolastic tapes are applied in layers according to the temperatures involved in the application, normally 3 layers are sufficient for most deisel exhaust applications. See table on data sheet for recommendations. The Thermolastic system consists of two components, inner reflective insulation layers, and a choice of outer protective layer of self bonding tape depending on the temperature resistance required (see data sheet).



Thermolastic Tapes



Tools required



Exhaust before insulation

There are no special tools required for installation only a tape measure a straight edge or ruler and a pair of scissors. These simple to follow, fully illustrated instructions are included with each pack



Fig. 1



Fig. 2



Fig. 3

Step One Exhaust should as clean and dry as possible and free from oil and dust. Where a distinct finished edge is required wrap the Thermolastic Insulation Tape loosely around the pipe to the thickness of insulation required, normally 3 layers and cut with scissors as in **fig.1**. Remove from pipe and fold in foiled edges to middle. **fig.2**



Fig. 4



Fig. 5



Fig. 6

Step Two Fix to pipe **fig.3** with self adhesive tape and wrap tightly, under tension to thickness. **fig.4** Fasten with self adhesive tape to hold and flatten edge with finger or suitable smooth object.

Issue No. 2	One	Dated:	20th January 2008	File Ref:	Prodata/Thermolastic/fit2	Page No. 1
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(Fitting Instructions continued)

Step Three Measure the circumference of the exhaust pipe to be insulated *fig.7*. Mark the same measurement on the front of the Thermolastic tape, (over the insulating section) at an angle as shown in *fig.8*. Cut with scissors as *fig.9*



Step Three Fasten the tapered cut end of tape to the exhaust to start. Spiral wrap the Thermolastic tape around the pipe keeping it under tension and overlapping the foil layers. The insulated section should butt up against the adjacent insulated section as in *fig.11*. Fasten with adhesive tape to secure. Subsequent layers should be spirally wound in the opposite direction as *fig.12*



Step Four Tightly bind ends with HT self adhesive glass fibre tape and smear with Thermolastic High Temperature Silicone RTV. As in *figs.13 & 14*. Apply Thermolastic protective layer, spirally winding under tension, removing the interleaving as you progress *fig.15*.

The Thermolastic protective layer should be overlapped by at least 20mm. This will allow sufficient area for self bonding. Smooth over the overlapping edges applying pressure in the direction of the wind. The bond strength will increase with age and any increase in temperature from the exhaust.

Useful hints and tips when installing Thermolastic

Do's:

1. Do follow the manufacturers instructions provided or from our website www.culimeta-saveguard.com
2. Do make sure pipes to be wrapped are clean, i.e. free from dust and oil or other contamination before fitting the insulation
3. Do terminate the insulation either side of any clamp or bracket areas.
4. Do allow at least 10 - 15mm between the terminations of the insulation and the pipe flanges or couplings, pipe hangers etc. (to reduce the effect of radiated heat on the outer layer).
5. Do minimise the temperature the outer layer is exposed to. Use at least 3 insulation layers for normal temperatures (up to 450C). Where the temperatures are higher than normal i.e. close to manifolds, use more insulation layers.
6. Do make sure any radiated heat on the outer layer, especially in close proximity to turbo chargers, is minimised by the use of a heat shield or alternatively terminate the insulation at a suitable distance from the heat source.
7. Do make sure the polythene interleaving on the rolls of the elastomeric tape is removed before the tape is applied.
8. Do contact customer service at Culimeta-Saveguard if you need any assistance.

Don'ts:

1. Do not allow the elastomeric outer layer to come into direct contact with the hot pipe.
2. Do not insulate over the elastomeric outer layer. (as this will greatly increase the temperature the material is exposed to).
3. Do not use Thermolastic insulation over joints, couplings, flanges etc.
4. Do not clamp over the insulated sections of pipes, always terminate insulation either side of clamp bracket areas.
5. Do not expose the elastomeric outer layer to temperatures above 200C for extended periods and never above 300C. Always use sufficient insulation layers to achieve a cold face temperature of 150C in normal conditions.

The information on this Data Sheet is strictly for guidance only and while provided in good faith cannot be guaranteed. The company reserves the right to alter or update this data as and when additional information is received. The Company's products are used in a wide range of applications over which the Company has no control therefore the Company excludes all conditions or warranties whether expressed or implied as to the fitness of the product for any particular purpose., other than that for which it is intended, please see product data sheet. Customers must establish product suitability via their own tests

Issue No. 2	One	Dated:	20th January 2008	File Ref:	Prodata/Thermolastic/fit2	Page No. 3
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