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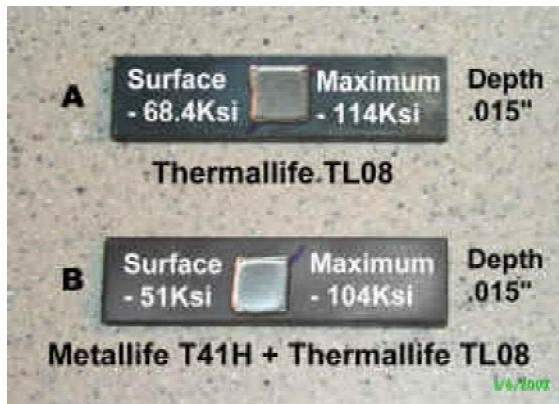
... Coupons that were used for plotting 2002 compression curves.

Why we use Lambda?

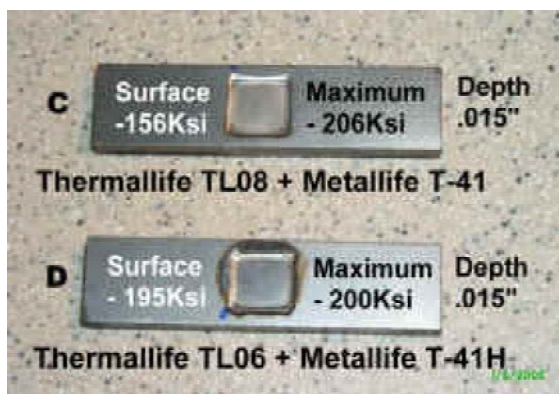
Curves and Graphs

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These results validate the compressive benefits



Graph of Coupon A B



Graph of Coupon C D

The coupons measure approximately .75" x .25" and are 3" long. Center sections were measured, plotted, then electro-polished to remove material. X-ray diffraction was again used to measure stress and the process repeated until the value of KSI crossed the zero "y" axis. From these plotted points curves are drawn

●	H-13 Premium Grade
●	Oil Quenched
●	46-48Rc
●	Milled Finish
●	Polish

The small square in the center of each coupon is the area where successive compressive stress readings were done by electro-polishing the surface. This method of polishing does not disturb the existing value of stress.

... The microstructure of a ferritic nitrocarburized H-13 surface shows an epsilon compound layer that is .0002" to .0008" in depth followed by the diffused carbon/nitrogen layer ranging in depth from .004" to .008" (dependent on processing criteria) which gradually dissipates.

Coupons used for plotting compression curves

axis. From these plotted points curves are drawn.

-- We have tested in the lab and field the acceptability of properly applying **MetaLife®** over **ThermaLife®** to NEW tooling by:

1. Applying T-41H over a TL06 **ThermaLife®**
- OR
2. Applying T-41 over a TL08 **ThermaLife®**

The below left photo shows:
a T-41H over TL06 process.
The below right photo shows:
a T-41 over TL-08 process.
No spalling in either case.

[Click here to view actual production tools](#)

We do not recommend that a T-41H **MetaLife®** process be applied over a TL08 **ThermaLife®** treatment. This may result in spalling of the surface diffusion compound layer as shown in the photo below.



Click on coupon to view a section



Click on coupon to view a section



Click on coupon to view a section

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last modified - 11 May 2003