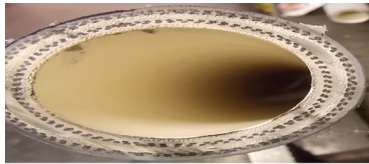


Prepared By: Randi Kremer

Hose/Fitting	1 1/2" ContiTech Vintner Reserve 250 CB, 250 WP. SAP# 20992570, 18.188" long,	Compression Ratio	Per CT Vintner specific sanitary hose using SAN machined ferrules. Specifically designed to reduce internal hose creep
Fitting & Retention	TC-6C/SAN150216	Highest Pressure	1554 psi
End 1 Diameter & Wall Thickness	.275, .268, .292, .284 - .280 Avg. wall, CD using our special Vintner Hose crimp guide to - 2.197" Pi taped OD measured $\Phi 2.072"$, ID = $\Phi 1.512$	Test Temperature	70 F
End 2 Diameter & Wall Thickness	.269, .270, .290, .275 - .276 Avg. wall, CD using our special Vintner Hose crimp guide to - 2.187" Pi taped OD measured $\Phi 2.066"$, ID = $\Phi 1.514$	Failure Mode	3" long hose burst near the end 2 ferrule end.



Hose construction top, in tester bottom



End 1 & End 2 at test start



Stretch at 1250 psi



Hose burst and burst area close up



Highest pressure achieved

Final permanent stretch E1/E2 = .03"
Inner tube seal to fitting end looks good

Primer: ContiTech has changed the design of the old Plicord Vintner CB hose and now it is named Vintner Reserve, 250 CB (for a Chlorobutyl tube). The inner tube thickness is about 1/4 of the older design. It is still a fabric reinforced, $\Phi .09"$ monofilament double helix (1" pitch each) FDA food grade hose with very good construction. The ferrule end aligns with .05" before the shank end prior to crimping with the ferrule OAL = 2.365" before crimp. Post crimp ferrule OAL = 2.474" E1 & 2.485" E2 for .109" & .120" elongation from crimping E1/E2 respectfully. Fitting insertion was an easy steady pressure push with rotation until the hose was just past the first serration. Crimping was done on a CC-600 using 51 mm dies, settings were 2.185 E1; 2.175 E2.

TEST RESULTS: The T-nuts of the clam shell clamps were tightened with a wrench to ensure adequate gasket compression to achieve high pressures. Pressure was raised slowly but steadily, observing closely at multipliers of the hose 250 WP to inspect for hose stretch under the ferrule. Stretch was 0" E1/E2 at 250 & 375 psi, increasing to .005" E1/E2 at 500 psi, then .02" E1/E2 at 750 psi, .05" E1/E2 at 1000 psi, .08" E1/E2 at 1250 psi and .15" both ends at 1500 psi. Around 1530 psi I heard a couple of breaking sounds, then the hose quickly burst to depressurize instantly. Permanent stretch was only .03" E1/E2. Peak pressure achieved was 1554 psi. Note, posttest, end 1 was cut off to capture quality photos of the inner tube seal around the fitting end and to be used for a hot air tube flow test.

Conclusion: This assembly performed extremely well. The inner tube seal at the fittings end looks good with just the slightest area rolling over the end a small amount. The hose achieved 6.22 times its 250 WP prior to hose failure/ burst. The pressure rating of the TC-6C/SAN150216 at normal hose compression is 500 psi @ 70F; this hose would not achieve a 2000 psi test pressure, nor is it needed. I do like the looks of the reduced compression crimp using the same original Vintner specific crimp chart on this new version and this test validated that it is safe for use at its 250 WP. I will also perform an elevated temperature pressure test, which will lead me to a generalized pressure rating for these parameters.