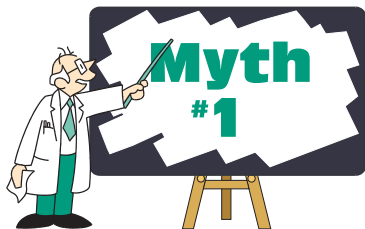


# Myths, Facts & Benefits of



## Hot Vulcanized Corrugated Sidewalls

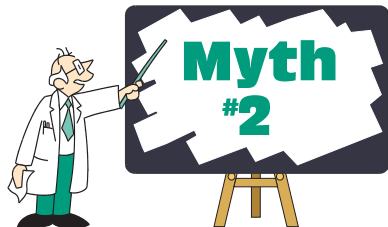
18620 NE San Rafael • Portland OR. 97230 • Phone: 888-270-4567 • Fax: 503-618-8445 • [cleatingresources.com](http://cleatingresources.com)



**"Hot vulcanizing lengthwise on a belt disrupts the cord lay in a carcass."**

**FALSE**

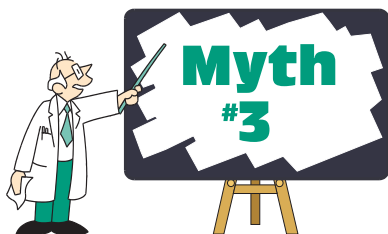
**Fact:** Once a belt has been cured, it is not possible to move the warp and/or weft yarns in a belt. The yarns are bonded to the rubber; and thus bonded to each other. The position of the yarns will not move unless a delamination or severe damage situation occurs in a belt.



**"Hot vulcanizing lengthwise on a belt destroys the belt's cross-rigid properties, causing mistracking."**

**FALSE**

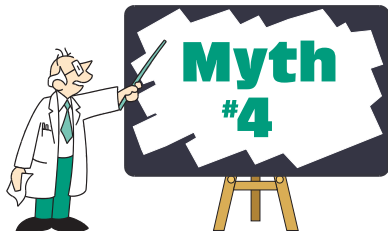
**Fact:** The cross-rigid plies in a belt have NO effect on tracking. It's the inner load bearing plies that can affect tracking, but the additional heating of hot vulcanization will not affect these plies enough to cause mistracking (unless, of course, the belt is a nylon warp yarn belt, which we would never recommend for a cleated sidewall belt).



**"Hot chemical cure is the same as hot vulcanizing"**

**FALSE**

**Fact:** The fact is that "hot chemical cure" is simply an acceleration of the cold bonding process (with applied heat and pressure). The inherent problems with cold bonding (human error, uncontrollable environmental conditions, etc.) still exist regardless of the heat and pressure applied to accelerate chemical curing. The application of heat to chemical curing adds no additional adhesion value whatsoever.



**"A damaged hot vulcanized sidewall can not be repaired in the field"**

**FALSE**

**Fact:** In the unlikely event that a hot vulcanized sidewall is damaged, the sidewall can easily be repaired in the field. Due to the higher adhesion values in the hot vulcanized application process, the damaged area would be limited (compared to the damage with a cold-bonded application process) and the repair time in the field would - in fact - be less.



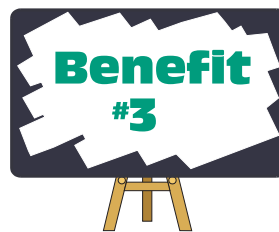
### Superior Adhesion

Hot vulcanizing sidewall to a belt creates a rubber to rubber adhesion of 80 to 100 PIW versus 35 to 45 PIW adhesions achieved with cold bonding. Because of the superior adhesion of hot vulcanizing, there is less likelihood of a sidewall delamination failure. In a five-year average, Cleating Resources has had a 0% delamination failure rate on our hot vulcanized sidewall. Industry averages indicate a 20% delamination failure rate on cold bonded sidewall. That means one in five customers experience sidewall delamination problems when the sidewall has been cold bonded.



### Insurance

Hot vulcanizing sidewall gives you the peace of mind that you are not exposing yourself to risk of sidewall delamination. The process insures that the sidewalls stay on the belt; and despite the additional labor and time sidewall application takes, it virtually becomes an insurance policy against separation.



### Higher Operating Temperature & Less Down Time

Hot vulcanization also allows you to run a belt at higher temperatures. At temps near 200 degrees, cold bond adhesives start to break down, causing the sidewall to delaminate from the belt. Even with additional bolts to hold the cold bonded sidewalls in place, once the adhesives break down, foreign particles can work their way under the sidewall, eventually causing the sidewall to delaminate and get torn from the belt, taking any bolts with it. Cold bonded sidewall once torn slightly from a belt usually continues to tear in great lengths, potentially causing damage to conveyor equipment like idlers, pulleys and gear boxes, etc. Hot vulcanized sidewalls, if torn from a belt, will tear a smaller section from the belt, with the remaining sidewall lengths intact. This repair would be manageable - requiring little down time to fix.



### Elimination of Trapped Material

By hot vulcanizing sidewalls, not only do you get an excellent adhesion, but you also get a better abrasion resistance to products like sand and gravel. While running these products on a belt they can work their way under a cold bond and contaminate the adhesion. Hot vulcanizing adheres the sidewall to the belt through heat and pressure leaving no room for anything foreign to work its way underneath during the application process. Hot vulcanization applies consistent heat and pressure to the sidewall and the belt. In cold bonding, dust and particles can contaminate a cold bond, disrupting the bonding surface. Prep time is critical because the glue can't be too wet or too dry or you'll get a bad adhesion. Humidity is a factor and pressure must be applied consistently to work out all the air bubbles in a cold bond application, or those air bubbles will eventually lead to delamination.