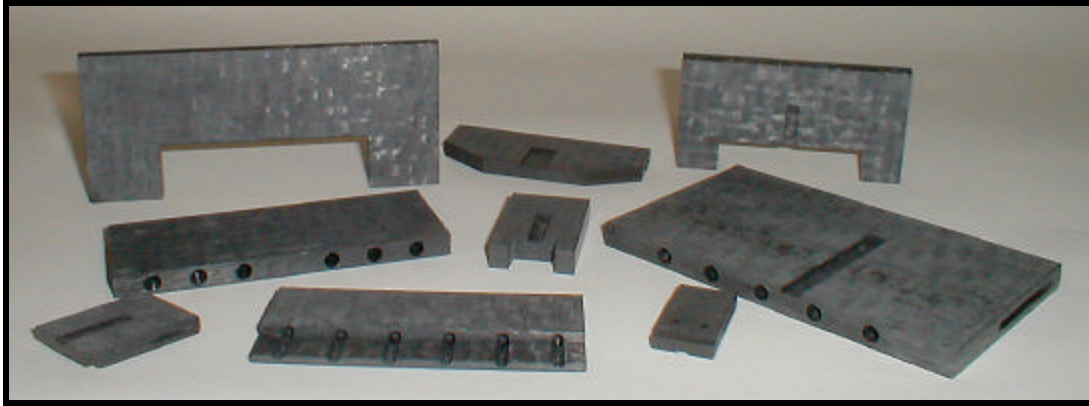


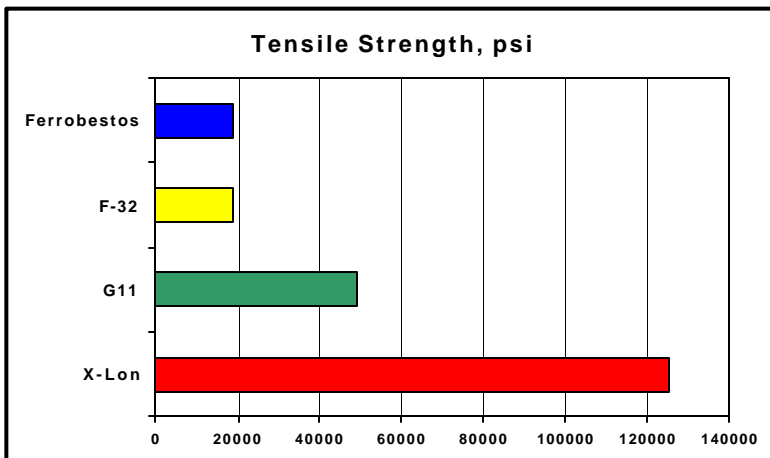
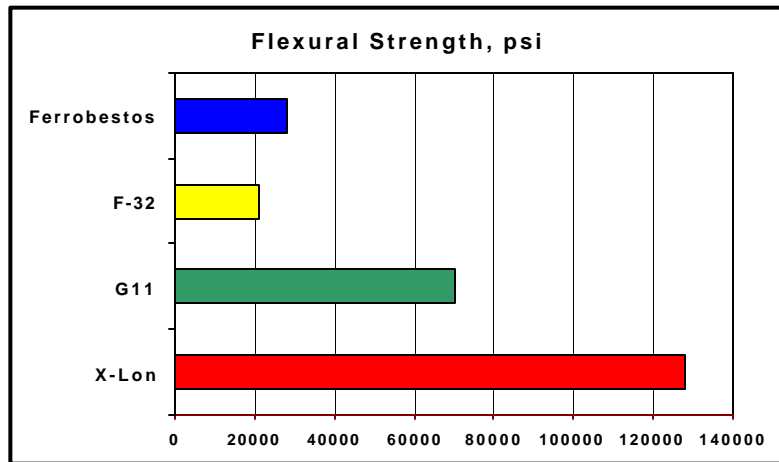
# Capitol Vacuum's Advanced Vane Material

In the harsh environment found inside a mechanical high vacuum pump, conventional materials cannot be used for high stress components such as vanes. Traditionally, ferro-asbestos was employed with good success. New environmental and safety regulations have made the manufacture of these materials difficult or impossible.



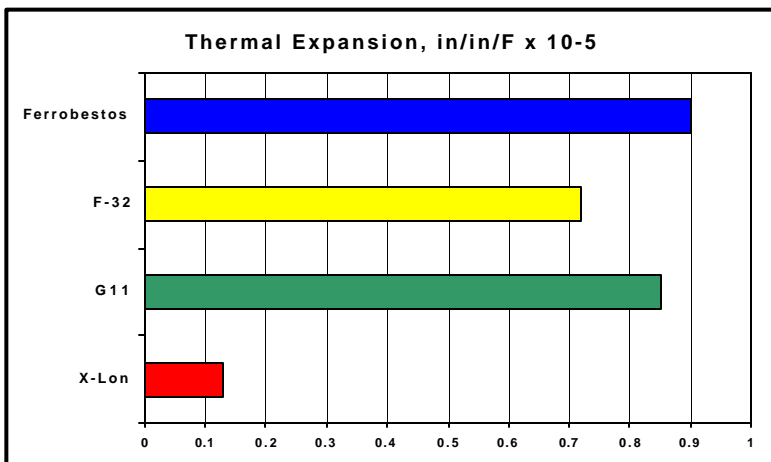
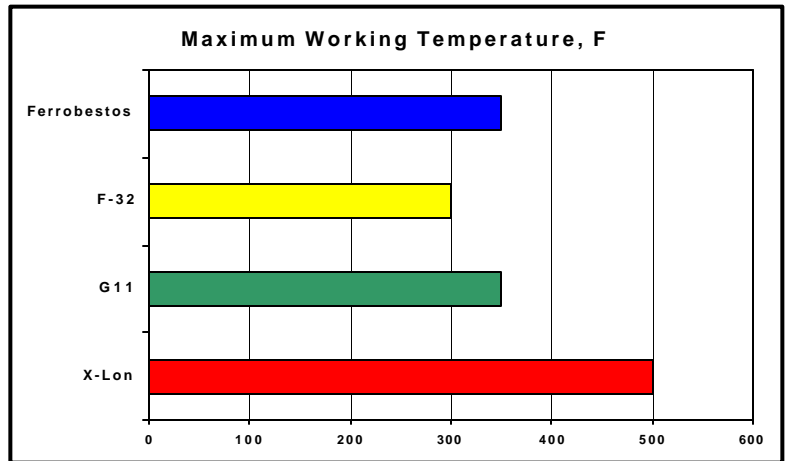
The advent of new polymer composites that are capable of withstanding the rigors of mechanical pump applications has offered the pump professional a choice of materials. **X-Lon™**, available only from **Capitol Vacuum**, was developed in conjunction with a specialty composite manufacturer *specifically for use in rotary vane mechanical vacuum pumps*; it is not an “off the shelf” material that has been adapted for this demanding application.

X-Lon™'s high flexural strength (resistance to bending) prevents vanes from breaking under extreme stress.



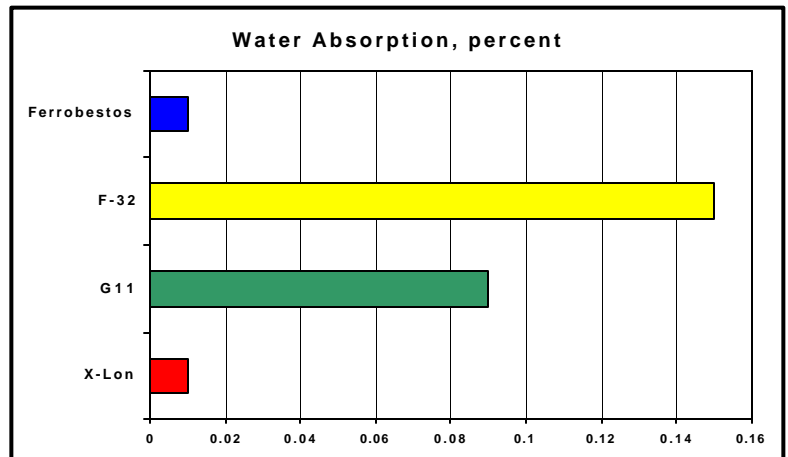
The extremely high ultimate strength of X-Lon™ is due to the proprietary method of carbon fiber reinforcement

X-Lon™'s maximum working temperature is almost 200° higher than most other vane materials, ensuring continuous operation under the most adverse conditions.



X-Lon™ has the lowest thermal expansion of all the popular vane materials available, allowing pump temperatures to rise without the thermal expansion that can cause vanes to seize.

Moisture absorption can cause vanes to swell, increasing internal friction and possibly causing pump seizure. As shown by the graph, X-Lon™ is non-hydroscopic.



If you'd like to know more about Capitol Vacuum's X-Lon™ vanes, please call us at 1-800-237-3933.

**Examine the facts: X-Lon™ makes sense!**