



CEJIPAC SDN. BHD.

157, Road 5, Minden Heights, 11700 Gelugor, Penang, Malaysia
Tel/Fax: 604-6580157 Website: www.cejipac.com.my

Comparison of Woven Polyester Strapping With Composite Strapping

1) Background

Both type of strappings have polyester fibres as their main component .Therefore, their properties and performance are the same .

Their manufacturing methods are different and so they look different physically.

The woven polyester strappings are weaved like fabric .This is one of the oldest and most reliable method of production .All lashings for extra heavy duty or safety applications are still made by weaving .

The composite strapping is produced by encasing the strands of polyester cord in PE .This made the strapping stiffer and supposed to mimic the steel strapping .It was developed in the 1960s to replace the steel strapping.

2) Comparison

| | <u>Composite</u> | <u>Woven</u> |
|-------------------------------|------------------|--------------|
| Properties | Same | Same |
| i)Lightweight | | |
| ii)Will not rot | | |
| iii)Weather resistant | | |
| iv)Shock absorbent | | |
| Performance | Same | Same |
| i)Strong as steel | | |
| ii)High system strength | | |
| iii)High retained tension | | |
| iv)Uses retensionable buckles | | |
| Feel | Stiff | Soft |
| Lateral strength | Low | Higher |

| | | |
|------------------|----------------|----------------------|
| Weight & Bulk | Heavier | Lighter |
| Width limitation | Upto 32mm | No |
| Cost | More expensive | At least 30% cheaper |

3) Conclusion

The composite strapping was developed to challenge the steel strapping in the 1960s. A plastic strapping that feel and perform like steel strapping was needed to change the perception of the users then. The composite strapping did a good job. By the 1990s, the steel strapping has largely been replaced by the three types of polyester cord strapping, namely, composite, glue-bonded and woven.

As a result of its history the composite strapping ranks high in the user perception. In reality, all three types of polyester cord strapping have the same performance and so are interchangeable in all applications. Any performance advantage is actually more perceived than real. However, there is a real difference in cost brought about by the different manufacturing methods.