

## Synthetic Web Sling Guide Sheet

### Sling Selection

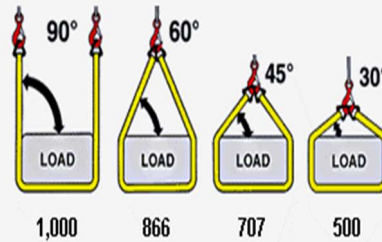
Select a sling having suitable characteristics for the type of load, hitch and environment to which it will be subjected.

- **Sling Capacity**- determine weight of the load
- **Sling Type**- select a sling suitable design for the type of hitch to be used
- **Sling Length**- choker slings with metal fittings must be sufficient length to assure that choking action is on the webbing. Basket hitch slings must be sufficient length to prevent overstressing of the sling legs due to high sling leg angles
- **Sling Body Ply**- body ply indicates the number of web thickness in the body of sling.
- **Material: Nylon vs. Polyester**- polyester should be used where acids are present and where minimum stretch of sling is desired.

### Sling Angle and Sling Load Chart

Sling angle is the angle measured between a horizontal line and the sling leg or body. This angle is very important and can have a dramatic effect on the rated capacity of the sling. As illustrated when this angle decreases, the load on each leg increases. This principle applies whether one sling is used to pull at an angle, in a basket hitch or for multi-legged slings.

**Slings angles of less than 45° are not recommended.**



Sling Angle in Degrees	Multiplier Factor
30	.500
45	.707
60	.866
70	.940
80	.996
90	1.00

### General Rejection Criteria

-Applies to all sling types:

- Missing or illegible sling identification
- Evidence of heat damage
- Slings that are knotted
- Fittings that are pitted, corroded, bent, twisted or broken
- Any visible characteristics that would indicate damage or cause doubt as to functionality and/or integrity of the sling.

### Chemical Resistance

- Nylon and polyester can be used with alcohols, cleaning solvents, halogenated hydrocarbons, crude oils, lubricating oils, soap and detergents, water and seawater.
- Do **Not** use nylon with acids or dry bleaching agents.
- Do **Not** use polyester with aldehydes or ethers.
- Slings incorporating aluminum fittings should not be used where fumes, vapors, sprays, mist or liquids of caustics and/or acids are presents.