



General Information

SYNTHETIC SLINGS

Inspection Before Use - Flat Webbing Slings

The following signs of damage should be looked for during inspections.

1. *External wear* – caused by dragging over rough surfaces causes an opening out of surface fibres (with a furry appearance). The outer faces of the webbing may become so worn that yarns in the weave are severed. The label may become damaged.
2. *Local abrasion* – Local abrasion will be caused by movement over sharp edges while the sling is under tension, which will result in a loss of strength.
3. *Cuts and contusions* – may be indicated by local rupturing or loosening of the yarns.
4. *Internal wear* – will be caused by repeated flexing, particularly when particles of grit or dirt have penetrated the fibres. The presence of grit or dirt may indicate internal wear.
5. *Damage to protective coating or sleeve* – Any damage to a protective coating or sleeve can allow damage to the sling.
6. *Damage from high temperatures* – High temperatures can result from a hot environment, radiation or friction. High enough temperatures will cause fusing or shrinkage of synthetic webbing. Fusion is able to occur at temperatures approximately equal to the melting point of the polymer from which the fibres have been made.
7. *Sunlight degradation* – Prolonged exposure to ultraviolet radiation (including sunlight) of any textile fibres will weaken the fibres. Degradation may be indicated by a hairy appearance of fibres.
8. *Chemical attack* – Chemical attack is usually indicated by the local weakening or softening of the webbing material. In some cases it may cause some stiffening of the sling. In extreme cases surface fibres are reduced to powder.
9. *Label damage*
10. *Deterioration of stitching*
11. *Damage of any eyes*
12. *Damage at the connection to any terminal attachment*
13. *Damage to any end fittings*

Discard Criteria

Slings shall be immediately discarded if they are found to have any of the following faults:

1. The label of the sling is missing or is illegible, and the sling cannot be positively identified.
2. Whenever a sling has lost 10% or more of its minimum breaking strength. If there is any doubt as to the strength of the sling a method of establishing its loss of strength is given by Clause 9.4.2 of AS 1353.2.
3. Any of the load bearing fibres are damaged. Any damage to a cover indicates potential damage to the load bearing webbing. Such damage may be in the form of surface chafe or cuts in the cover. Any cuts in the cover should raise serious doubts as to the integrity of the load bearing webbing. Fibres of a protective cover that are fused or glazed indicates that the sling has been excessively heated (e.g. by friction in a choke hitch, by externally applied heat).
4. Chemicals have caused any damage (e.g. local weakening, softness of the cover, flaking of surface fibres). In such cases, damage to the load bearing webbing should be assumed.
5. Any coupling components or fittings are distorted, cracked, fractured or excessively worn or corroded.
6. If any other dangerous condition is confirmed.

Inspection Before Use - Round Slings

Every time a sling is to be used, the user must be satisfied that the sling does not show any signs of damage that could affect its safe use.

Slings shall be withdrawn from service immediately if they sustain any of the following faults:

1. The cover has been damaged.
2. The stitching has been damaged.
3. The label of the sling is missing or is illegible, and the sling cannot be positively identified.
4. Any of the load bearing fibres are damaged. Any damage to a cover indicates potential damage to the load bearing core. Any cuts in the cover should raise serious doubts as to the integrity of the load bearing core. Fibres of a protective cover that are fused or glazed indicates that the sling has been excessively heated (e.g. by friction in a choke hitch, by externally applied heat).
5. Chemicals have caused any damage (e.g. local weakening, softness of the cover, flaking of surface fibres). In such cases, damage to the load bearing core should be assumed.
6. Any coupling components or fittings are distorted, cracked, fractured or excessively worn or corroded.
7. If any other dangerous condition is confirmed.

Care In Use

Evaluation

When a sling has been withdrawn from service because of any doubt about its condition, its safety may be evaluated by a competent person. The competent person may approve of the sling being returned to service, if the concern is considered to not affect the safety of the sling. The competent person may recommend repair of the sling, provided the sling can be identified and it is considered that the load-bearing fibres have not been damaged.

Cleaning

If a sling requires cleaning, refer to Nobles for suitable cleaning methods.

Repairs

Slings having any of the faults listed must be discarded. The standard does not permit repairs to load-bearing webbing of a sling, but manufacturers may replace labels and repair removable covers. Any repaired slings shall be proof load tested before being returned to service.