SRI LANKA STANDARD 848 : PART 1 : 1989

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SPECIFICATION FOR

WOOD POLES FOR OVERHEAD POWER AND TELECOMMUNICATION LINES

PART 1 - TERMINOLOGY OF WOOD POLES

SRI LANKA STANDARDS INSTITUTION

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SRI LANKA STANDARD
SPECIFICATION FOR WOOD POLES FOR OVERHEAD POWER AND TELECOMMUNICATION LINES
PART 1 : TERMINOLOGY OF WOOD POLES

FOREWORD

This Sri Lanka Standard was authorized for adoption and publication by the Council of the Sri Lanka Standards Institution on 89.05.12, after the draft, finalized by the drafting committee on Wood Poles for Overhead Power and Telecommunication Lines, had been approved by the Electrical Engineering Divisional Committee.

The formulation of a standard on wood poles was felt necessary to achieve the following objectives.

a) Maintain quality and uniformity of production.
b) Ensure that poles are used according to their load capabilities.
c) Enhance the production of poles by the proper classification of all usable locally grown species.

This standard is in four parts, namely; Part 1 Terminology of wood poles; Part 2 Selection and preparation of wood poles for treatment; Part 3 Design data and pole classes; and Part 4 Tests to determine mechanical and physical properties of poles.

The assistance derived from publications of the American National Standards Institution and British Standards Institution, in the preparation of this standard is gratefully acknowledged.

1 SCOPE

This part of the standard deals with terminology applicable to wood poles.

2 REFERENCES

SLS 848 Woodpoles for overhead power and telecommunication lines
Part 3 Design data and pole classes

3 DEFINITIONS

The following definitions shall apply to the terms used in this standard.

3.1 air seasoning : Drying by the use of air where the air temperature is not more than 50 ^{o}C either in the open or under cover.

3.2 **check** : The lengthwise separation of the wood that usually extends across the growth rings and commonly results from stresses set up in wood during seasoning.

3.3 **compression wood** : Abnormal wood which tends to restore the normal direction of growth, formed typically on lower sides of branches and of leaning or crooked trunks of softwood trees. Zones of compression wood are typically denser and darker than the surrounding tissue and have abnormally high longitudinal shrinkage tending to cause the wood to warp and split.

3.4 **crook** : A sudden deviation from straightness at any point in the length of the pole.

3.5 **cross break** : A separation of the wood cells across the grain. Such breaks may be due to internal strains resulting from unequal longitudinal shrinkage or to external forces.

3.6 **dead streak** : An area, devoid of bark, resulting from progressive destruction of the growth cells of wood and bark at the edges of the streak. On a pole, a dead streak is characterized by a discoloured, weathered appearance and by the lack of evidence of overgrowth along the edges of the deadened surface.

3.7 **decay** : The decomposition of wood substance by fungi.

3.8 **decay, advanced (or typical)** : The older stage of decay in which the destruction is readily recognized because the wood has become soft and spongy, stringy, ring-shaked, pitted, crumbly or in poles not stored or rafted in water, is in a soggy condition. Decided discolouration or bleaching of the rotted wood is often apparent.

3.9 **decay, incipient** : The early stage of decay that has not proceeded far enough to soften or otherwise perceptibly impair the hardness of the wood. It is usually accompanied by a slight discolouration or bleaching of the wood.

3.10 **decayed knot** : A knot containing decay. Two types of decayed knots are recognized.

Type I - Knots containing soft or loose fibres (decay) which may extend the full length of the knot into the pole and which are associated with heart rot.

Type II - Knots containing soft or loose fibres (decay) which are not associated with heart rot.

3.11 **face of pole** : The concave side of greatest curvature in poles with sweep in one plane and one direction, or the side of greatest curvature between ground line and top in poles having reverse or double sweep.

3.12 ground line section : That portion of a pole between 300 mm above and 600 mm below the ground line, as defined in the pole dimension tables (see Part 3 of this standard).

3.13 heart rot : A type of decay characteristically confined to the heartwood; it usually originates in the standing tree.

3.14 hollow heart : A void in the heartwood caused by decay or insect attack.

3.15 hollow pith centre : A small hole at the pith centre of the trunk or of a knot caused disintegration of the pith (small soft core occurring in the structural centre of a tree or branch).

3.16 insect damage : Damage resulting from the boring into the pole by insects or insect larvae. Scoring or channelling of the pole surface is not classed as insect damage.

3.17 knot diameter : The diameter of a knot on the surface of the pole measured in a direction at right angles to the lengthwise axis of the pole. The sapwood as well as the heartwood portion of a knot shall be included in the measurement.

3.18 red heart : A condition caused by a fungus, that occurs in the living tree. It is characterized in the early stages of infection by a reddish or brownish colour in the heartwood. This is known as 'firm red heart'. Later the wood of the living tree disintegrates (decays) in small,usually distinct, areas that develop into whitelined pockets.

3.19 sap stain : A discolouration of the sapwood, caused by the action of certain moulds and fungi, that is not accompanied by softening or other disintegration of the wood.

3.20 scar : A depression in the surface of the pole resulting from a wound where healing has not re-established the normal cross section of the pole.

3.21 scar, turpentine acid face : An area in the lower portion of a pine pole where bark hack removal with acid applied has caused resin to flow. No removal of sapwood has occurred.

3.22 scar,turpentine cat face : A depression in the surface of a pine pole resulting from a wood hack into the sapwood, where healing has not re-established the normal cross section of the pole.

3.23 shake : A separation of the wood along the grain, the greater part of which occurs between the growth rings.

3.24 spiral grain ; twist grain : Wood in which the fibres take a spiral course in one direction about the trunk of a tree instead of a vertical course.

3.25 split : A lengthwise separation of the wood through the surface of the pole due to the tearing apart of the wood cells.

3.26 sweep : Deviation of a pole from straightness.

3.27 tension wood : Abnormal wood which tends to restore the normal direction of growth, formed typically on upper sides of branches and of leaning or crooked trunks of hardwood trees.

It has abnormally high longitudinal shrinkage tending to cause warp and splitting ; the machined surface tends to be fibrous or woolly especially when green.

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