


## 118. ROPES (CLIMBING/ RAPPELLING)

QUALITATIVE REQUIREMENTS	PICTURE OF EQUIPMENT
<p><b>SCOPE :-</b> The specification covers to the requirement of climbing rope nylon glacier region. The rope is intended top be used as an aid in climbing difficult cliffs/slopes in glacier region.</p> <p>Related specification &amp; availability : the following will be related specifications</p> <p>a) IS -678 Method for determination of colour fastness of textile materials to washing test no 1</p> <p>b) IS – 2454 Method for determination of colour fastness of textile materials to artificial light.</p> <p>c) IS- 6590 Braided nylon rope for mountain ring purpose.</p> <p>d) IS – 397 – Kraft paper</p> <p>e) IS – 1912 Country jute twine</p> <p>f) IS – 3751 – Heavy cloth</p> <p>g) IS – 2508- Low density polyethylene film</p> <p>h) Indian standard specification are obtainable on payment from the secretary (ADM) BIS Manak Bhawan 9 Bahadur shah zafar marg N/DLI or from their regional office.</p> <p><b>SEALED SAMPLE :-</b> The climbing rope will confirm to every respect to the terms of this specification in workmanship finish and in all other respects not defined in this specifications it will confirm to the sealed sample held in custody of controlling authority.</p> <p><b>MATERIAL :</b> The rope will be made from continuous 140 TEX (1260 d) high tenacity nylon 6 or 66 multifilament yarn and be given heat treatment. The required breaking strength of the rope may be achieved by use of nylon yarn having tenacity 63 g/tex (7g/d) count/denier of the yarn can be varied suiting to the construction and finish of the rope.</p> <p><b>MANUFACTURE ,WORKMANSHIP AND FINISH:-</b></p> <p>The rope will be manufacture with braided sheath and twisted core. The core and the braiding will be well formed and free from knots, subs or strains. All constituent yarn of rope shall have proper tension during manufacture so as to obtain uniform diameter with round cross section and appropriate flexibility. Core will not be in braided construction.</p> <p>b) There will be 12 undyed core ends and 24 spindles in sheath. Out of 24 spindles, 12 spindles will be fast bright yellow colour, 11 spindles of fast bright scarlet colour and one spindle of fast bright blue colour, Inter plating in sheath will be maintained in order of 1 yellow spindle alternatively . Like wise 23 spindles will be main tend and 24<sup>th</sup> spindle will be blue colour to obtain the required pattern of braiding . Rope will be smooth in fell and free from slackness of sheath and core looping tendency.</p> <p>c) The rope will be tendered in 49m of continuous length.</p>	

<p>A length of 4m from either end shall be cut and tested for characteristics given in clause 6 and 7 below. After examination of ropes which are strictly confirming to the required particulars shall be heat sealed.</p> <p>d) In appearance, general workmanship ,Finish and in any other respects not defined in this specification, The rope will match with the respective sealed sample held in the custody of controlling authority.</p>	
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a) Construction particular :-

Sheath- No of spindles-24 (Yellow-12),Scarlet-11Blue-1	Core-No pf core ends-12 count (denier)- 1260x2x10(twisted together)
No of stands in each core end -2	No of yarns in each stand -10 of core
Turns /dm-15 (Min)	

b) The construction details of the rope will be varied to suit the manufacturing conditions provided the finish and requirement as given in clause 7 are successfully met.