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1. Material Name	Aluminium Strip	Established	2009. 05. 14	Revised	2011. 01. 21	Grade	1st grade
2. Applicable Range	This material is applied to the outer conductor of high-frequency band coaxial cable.						
3. Material Classification	Aluminium Alloy Strips (A1050, A1100)						

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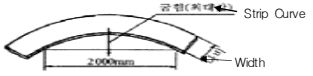
Classified Number

2009. 5.14 / 2011. 01. 21

Established / Revised

LS Cable Ltd. Material Specification

4. Test Item	Default Degree	Unit	Specified Value	Test Condition	Test Method
1) Diamension	Light		Thickness(mm) / Width(mm) / Length(m) / Weight(kg) / Alloy **0.35** / **82** / **3325** / **258** / **A1050, A1100** Thickness ± 5%, Width ± 0.1mm, Length -0, +20M, Specific Gravity of Al 2.7 g/㎤ (Reference Value) There should not be connection mark on strip roll.	Normal Temperature	.Strip dimension can be measured by Vernier Caliper (less than 0.05mm unit)
2) Tensile Strength	Heavy	kgf/㎟	A1050: 6.1 ~ 10.2 / A1100: 7.6 ~ 11.2	.Prepare the 100mm strip sample and mark the standard length 50mm before tensile strength measurement.	.KSB 0802 (Method of tensile test for metallic materials)
3) Elongation	Heavy	%	A1050: 15 ≤ / A1100: 20 ≤	.Prepare the 100mm strip sample and mark the standard length 50mm before elongation measurement.	.KSB 0802 (Method of tensile test for metallic materials)
4) Hardness (Reference)	-	HV	A1050: 21 / A1100: 23	-	.JIS Z 2244 (Vickers Hardness Test - Test Method)
5) Electric Conductivity	Heavy	%	A1050: 60 ≤ / A1100: 59 ≤	.Strip sample should be more than 350mm in 20℃ temperature.	.JIS H 4000 (Aluminium and aluminium alloy sheets, strips and plates) .KSD 0240 (Measuring methods for electrical resistivity and conductivity of non-ferrous materials)
6) Elements Purity	Heavy	%	A1050: Al : 99.50 ≤, Cu : 0.05 ≥, Fe : 0.4 ≥, Mg : 0.05 ≥, Mn : 0.05 ≥, Si : 0.25 ≥, Ti : 0.03 ≥, V : 0.05 ≥, Zn : 0.05 ≥ A1100: Al : 99.00 ≤, Cu : 0.2 ≥, Mn : 0.05 ≥, Si + Fe : 0.95 ≥, Zn : 0.1 ≥	-	.KSD 6701 (Aluminium and Aluminium alloy sheets and plates, strips and coiled sheets)
7) Strip Curve	Heavy	mm	Thickness / Width / Maximum Strip Curve 1.6 ≥ / 25 < Width ≤ 50 / 15 1.6 ≥ / 50 < Width ≤ 100 / 10 1.6 ≥ / 100 < Width ≤ 250 / 7	.Adhere 2,000mm copper strip to flat ground and measure the depth of curved strip arc.	.KSD 6701 (Aluminium and Aluminium alloy sheets and plates, strips and coiled sheets) 
8) Material Aspect	Heavy	-	.Strip exterior should be even and bright, and there exists no fault and toxic substance. .There should not be damages on strip cutting plane. .Proper process to prevent strip discoloration in transportation and warehousing should be performed. .Feature of strip winding should be uniform and precise.	-	-
9) Operational Requirements	Heavy	-	.Before product manufacture, foreign substance (solid or liquid) on strip surface is not permissible. .Impurity and disproportion between aluminium particles are not permissible. .Strip should be greatly applicable to TIG welding process. .Damage or abnormality after corrugation process for outer-conductor is not acceptable. .Strip should not be twisted when unrolling. .There should not be bends or pleats on the direction of width. .Strip should not be torn or cracked on product manufacture process.	-	-
10) VSWR & Thickness Uniformity on Strip Line	Heavy	-	.Periodicity of strip thickness in longitudinal direction should not take place and dimension specification has to be observed in all strip section. .VSWR (30~2,400MHz) mathematically transformed from data of Strip thickness results is regulated below 1.10.	-	.Supplier should check and record the prediction of VSWR through the FFT (Fast Fourier Transform) which is tool of conversion to frequecy from time (longitudinal direction of the strip). .Supplier should submit the FFT result, if not they accept LS result.