



UNIVERSIDAD NACIONAL AGRARIA LA MOLINA

Departamento Académico de Industrias Forestales

Área de Transformación Química-Laboratorio de Pulpa y Papel

**TECHNICAL ASSESSMENT REPORT PRODUCT: HANDMADE PAPER
No. 003-e/02-2020-LPP**

1. PURPOSE OF REPORT

At the request of Don Bosco Association (communication w/n dated dec 31,2019), requested to evaluate the quality of handmade paper in their presentations (1) whitesheet, and (2) color ivory. The paper samples, in both cases these made with vegetable non-wood fibers.

2. PRODUCT DESCRIPTION

The product presented is a handmade paper, made entirely with long fibers of cotton (*Gossypium* sp.), This definition of the paper product is indicated in ISO 4046-3¹. The paper has the following characteristics:

- Tariff item: 48.02.10.00.00
- It is a paper with medium density, made with different values of grammage variable, 70 to 650 g/m², evaluated according to TAPPI T-410².
- This paper has high brightness, measured according to TAPPI T-452³.
- It is a paper with high-opacity, according to TAPPI T-425⁴.
- It is a porous paper, evaluated according to the method Gurley, TAPPI T-460⁵.
- The paper has a medium resistance to stress and a good tear, respectively, according to TAPPI standards T-404⁶ and T-414⁷.
- The product is well sized, evaluated according to standard NTP-ISO 535⁸ and qualified according to standard NTP 272,128⁹.

La Molina, february 26th 2020



HÉCTOR ENRIQUE GONZALES MORA, Ph.D.

Responsible

Chief PULP AND PAPER LABORATORY

CIP 31024

¹ ISO 4046-3 2002. Paper, board, pulps and related terms —Vocabulary —Part 3: Paper-making terminology punto 3.95,

² TAPPI T-410 om-98. Grammage of paper and paperboard (weight per unit area)

³ TAPPI T-452. Brightness of pulp, paper and paperboard (directional reflectance at 457 nm)

⁴ TAPPI T-425. Opacity of paper

⁵ TAPPI T-460 om-96. Air resistance of paper (Gurley method)

⁶ TAPPI T-404 cm-92. Tensile breaking strength and elongation of paper and paperboard (using pendulum-type tester)

⁷ TAPPI T414 om-98. Internal tearing resistance of paper (Elmendorf-type Method).

⁸ NTP-ISO 535:2001. Determinación de la absorción de agua en papeles, cartones y cartón corrugado.

⁹ NTP 272.128:2010. Principios para la Clasificación General y Guía Selección parámetros de Calidad de Papeles y Cartones.

Address: Av. La Universidad s/n C.P. 15024-La Molina, Lima PERÚ

Telefax (51-1) 6147800 anex 229-473 Email: egonzales@lamolina.edu.pe