

PAPER TUBES: VERSATILE AND SUSTAINABLE SOLUTIONS

Introduction

- <u>Paper tubes</u> are cylindrical structures made from layers of paperboard or kraft paper.
- Used in various industries for packaging, construction, and creative applications.
- Eco-friendly and recyclable alternative to plastic and metal tubes.



TYPES OF PAPER TUBES

- 1. Spiral Wound Tubes Manufactured by winding layers of paper at an angle.
- 1. Convolute Wound Tubes Made by wrapping paper layers parallel to the tube's axis.
- 1. Parallel Wound Tubes Paper layers are wrapped straight along the length.
- 1. Composite Tubes A mix of paper and other materials for added strength.

MANUFACTURING PROCESS

Paper sheets are glued and wound around a mandrel.

Compression and drying ensure structural integrity.

Cutting and finishing processes customize tubes for specific applications.

CONCLUSIONS AND NEXT STEPS

- Paper tubes offer a sustainable and versatile solution across industries.
- Growing demand for eco-friendly packaging is driving innovation.
- A promising alternative to traditional materials with ongoing improvements
- Limited resistance to moisture and heavy loads.
- Need for wider industry adoption.
- Advancements in biodegradable coatings and improved durability.

