ITEM: Propeller-type wind turbine blade blank, consisting of two supporting aerodynamic surfaces made of carbon fibre and fibreglass, with a metal tip at the end to protect against lightning. The product is supplied unfinished and requires final painting and inspection to achieve its complete appearance. It weighs 12,500 kg, has a maximum width of 4 m, a length of 61.7 m and a circle of 2.5 m diameter for the placement of the tail bolts. The product is intended for use in wind-driven power plants. Once completed, it is to be installed in a power plant consisting of a tower, a spinner with horizontal blades and a nacelle containing a gearbox, a braking system and an electric generator. The finished blade is attached to the spinner hub.

Suggested Tariff Classification

Phase 1

Top 3 candidate chapters

Chapter	Justification
85	Unfinished rotor blade identifiable solely for a wind-powered electric generating set retains the essential character per GRI 2(a) . Parts suitable for use solely or principally with the machines of headings 85.01 or 85.02 fall in 85.03 ; wind-powered generating sets are within heading 85.02 (generator coupled to a non-electric prime mover) . By GRI 1/3(a), the specific parts heading prevails over broader alternatives .
84	If viewed as part of a wind motor rather than the full generating set, Ch. 84 covers engines/motors (e.g., 84.12 ‘other engines and motors’) . However, GRI 3(a) favors the more specific 85.03 (parts of 85.02) over residual machinery headings like 84.79 .
70	A material-based approach (glass and its manufactures; Ch. 70) could be considered due to fiberglass . Yet under GRI 1, classification follows headings/notes, and identifiable parts of Section XVI machines are classified there—here, 85.03 as parts of 85.02 . Other chapters typically exclude Section XVI goods (e.g., Ch. 71 excludes ‘machines, electrical material and parts of Section XVI’) .

Phase 2

TARIFF CLASSIFICATION RULING

I. Applicable legal framework

- General Rule of Interpretation (GRI) 1: Classification is legally determined by the terms of the headings and of any relevant Section or Chapter Notes, with the titles of Sections, Chapters or Sub-Chapters having only an indicative value .
- GRI 2(a): A reference to an article includes the incomplete or unfinished article, provided it has the essential characteristics of the complete or finished article. The explanatory note clarifies this extends to "blanks," i.e., items not usable as presented, having approximately the shape or profile of the finished article and normally intended solely for the manufacture of that piece .
- GRI 3(a) and 3(b): When goods are prima facie classifiable under two or more headings, the heading with the most specific description takes precedence over a heading with a more general description; if that is not decisive, classification shall be according to the material or component which gives the goods their essential character .
- GRI 6: Classification at subheading level is determined by the terms of those subheadings and any related subheading notes, applying GRIs 1–5 mutatis mutandis; only subheadings at the same level are comparable .
- Chapter 85 (text and national explanatory criteria):
  - Heading 85.02 covers "Electric generating sets and rotary converters," and the national explanatory criteria state that, for heading 85.02, a generating set is the combination of an electric generator coupled to and/or driven by any non-electric prime mover, and also explain when combinations form a single body; where they do not, each element retains its own classification regime .
  - Subheading 8502.31 expressly covers "Wind-powered" generating sets (aerogenerators) .
  - Heading 85.03 covers "Parts suitable for use solely or principally with the machines of heading 85.01 or 85.02," with subheading 8503.00 at the 6-digit level. The Mexican tariff even provides national further breakouts under 8503.00 that include goods recognizable as designed exclusively for aerogenerators .

- Other headings considered within Chapters 84 and 85 (for exclusions):
  - Heading 85.01: “Electric motors and generators, except generating sets” .
  - Heading 85.48: “Electrical parts of machinery or apparatus, not specified or included elsewhere in this Chapter” .
  - Heading 84.10: “Hydraulic turbines and water wheels; and regulators therefor” .
  - Heading 84.11: “Turbojets, turbopropellers and other gas turbines” .
  - Heading 84.87: “Parts of machines or apparatus, not specified or included elsewhere in this Chapter ... (non-electrical)” .

II. Legal-technical analysis

1) Description of the merchandise The good is a propeller-type wind turbine blade blank, consisting of two aerodynamic supporting surfaces made of carbon fibre and fiberglass, with a metal tip for lightning protection; unfinished (requires final painting and inspection); intended for installation on a horizontal-axis wind turbine that forms, together with a generator, gearbox, brakes and nacelle, a wind-powered generating set.

2) Heading selection

- By function and destination, the good is an identifiable component of a wind-powered generating set (aerogenerator). The legal note for heading 85.02 expressly defines “generating set” as the combination of an electric generator with a non-electric prime mover; wind-powered generating sets are specifically provided in subheading 8502.31 . The blade is an essential mechanical element of the wind prime mover that drives the generator; therefore, it is a “part suitable for use solely or principally with” machines of heading 85.02.
- Heading 85.03, by its terms, covers parts suitable for use solely or principally with machines of heading 85.01 or 85.02; subheading 8503.00 is the 6-digit level for such parts. Mexico’s national breakouts under 8503.00 even include items “recognizable as designed exclusively for aerogenerators,” evidencing the intended classification path for wind-turbine components of generating sets .
- Applying GRI 1 to the heading texts and notes cited above, the merchandise falls within heading 85.03 and, by GRI 6, into subheading 8503.00 .

3) Condition as “unfinished/blank”

- Although the blade is supplied unfinished (pending painting and inspection), it already has the essential characteristics of a completed blade. Under GRI 2(a), incomplete or unfinished articles having the essential character of the finished article are classified as the finished article; the Explanatory Notes extend this principle to “blanks” that have the approximate shape/profile of the finished piece and are not usable as presented except to make that piece .

- Therefore, the blade blank retains the tariff character of a wind-turbine blade part for a generating set, and classifies as a part under heading 85.03 and subheading 8503.00.

4) Composite nature and essential character

- The merchandise is a composite of carbon fibre, fiberglass and a metal tip; however, the classification is governed by the function/destination as a part for a generating set. GRI 3(b) confirms that where needed, goods are classified according to the component giving them their essential character; here, the essential character is the blade as a part of the generating set’s prime mover, not the lightning-protection tip or the constituent materials .

III. Exclusion of alternative headings (Chapters 84 and 85)

- Heading 84.10 (Hydraulic turbines) and heading 84.11 (Gas turbines): The good is neither a hydraulic turbine part nor a gas turbine part. The device forms part of a wind-powered generating set (85.02/8502.31) and is not associated with hydraulic or gas prime movers; therefore, 84.10 and 84.11 are inapplicable under GRI 1 .

- Heading 84.87 (Other machine parts, NESOI, non-electrical): Residual provisions of Chapter 84 cannot apply where a more specific provision in Chapter 85 expressly covers parts suitable for use solely/principally with generating sets (85.03). By GRI 1 and 3(a), heading 85.03 prevails over residual headings for “other parts” in Chapter 84 .

- Heading 85.01 (Electric motors and generators, except generating sets): The merchandise is not an electric motor or generator, nor a part thereof classified in heading 85.01; it is a part suitable for use with a generating set of heading 85.02, which is covered by heading 85.03 .

- Heading 85.02 (Generating sets): The good is not a complete generating set, but a part thereof. Parts for machines of heading 85.02 are to be classified in heading 85.03, by application of the heading text of 85.03 and GRI 1/6 .

- Heading 85.48 (Electrical parts of machinery): The merchandise is a mechanical blade, not an electrical part, and it is specifically provided in a more appropriate provision (85.03). By GRI 1 and 3(a), heading 85.48 is excluded .

Specific exclusion of 8412.90 (required)

- Although heading 84.12 covers “Other engines and motors” and 8412.90 their parts, the present merchandise is a part suitable for use solely or principally with a wind-powered generating set of heading 85.02. Under GRI 1 and 3(a), heading 85.03 (“Parts suitable for use solely or principally with the machines of heading 85.01 or 85.02”) provides a more specific and direct legal description than the broader “parts of other engines and motors.” Moreover, the national text expressly recognizes wind-powered generating sets in subheading 8502.31 and provides national breakouts under 8503.00 for parts recognizable as designed exclusively for aerogenerators, confirming the Chapter 85 path for wind-turbine components of electric generating sets . Therefore, 8412.90 is discarded in favor of 8503.00 by application of GRI 1, GRI 3(a) and the cited heading texts/notes .

IV. Documentary requirements for the importer To substantiate classification as parts suitable for use solely or principally with machines of heading 85.02 under heading 85.03 (subheading 8503.00), it is recommended to provide:

- Technical datasheet and engineering drawings of the blade blank, indicating dimensions, materials, design features (hub interface, metal lightning tip), and the intended wind turbine model/nacelle with which it is used, evidencing sole/principal use with wind-powered generating sets of heading 85.02 (per the text/notes of 85.02 and 85.03) .

- Assembly/installation manual or OEM statement showing that the finished blade is mounted to the spinner/hub of a wind-powered generating set (aerogenerator) .

- Evidence of condition as “unfinished/blank” and of essential characteristics (e.g., quality control sheet indicating pending painting/inspection only), to support GRI 2(a) treatment as an article having the essential character of the finished part .

V. Conclusion Classification table

- Chapter: 85 (Electrical machinery and equipment; parts thereof) .

- Heading: 85.03 (Parts suitable for use solely or principally with the machines of headings 85.01 or 85.02) .

- Subheading: 8503.00 .

- National tariff fraction: Not determined (the present ruling is confined to the 6-digit subheading, as requested).
- NICO: Not determined.

Final resolution By application of GRI 1, GRI 2(a), GRI 3(a) and GRI 6, and considering the specific texts and national notes for headings 85.02 and 85.03, the “propeller-type wind turbine blade blank” intended for a wind-powered electric generating set is classified at the subheading level as 85.03.00 (8503.00) .

Notes

- The explicit national presence of “Wind-powered” generating sets in 8502.31 (Aerogeneradores) and the existence of national breakouts under 8503.00 covering parts recognizable as designed exclusively for aerogenerators corroborate the Chapter 85 parts-with-machine approach and exclude 8412.90 by greater specificity under GRI 3(a) .