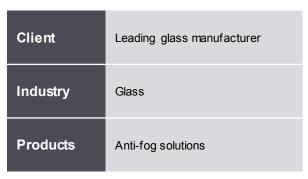
**Technological Landscape for Anti- fog Coatings** 

**Case Study** 



### Technological Landscape for Anti-fog Coatings



#### Context

 The client focused on gaining an overview of various anti-fog technology solutions and benchmarking them on different parameters, thereby enabling the selection of the best technology for refrigerator glass door application.

#### **Key Business Questions**

- Which technologies provide anti-fogging effect on different substrates, such as glass, plastics, etc.?
- How do select technologies compare against each other on select parameters of the technology radar?
- What are the global standards and test methods for anti-fog coating performance?
- How have competitors positioned their products with respect to various parameters, such as energy saving, durability, etc.?

#### **Engagement Scope**



#### Technology Landscape

- Identified various anti-fog technologies:
  - Developers of anti-fog solutions for films, sprays, and gel and coating formats
  - Advantages and disadvantages
  - Cost difference among technologies
  - Technologies that could be used for different substrates, such as glass or plastic, for various applications
- Conducted detailed patent and scientific literature analysis for anti-fog coating solutions
- Identified global standards and test methods for anti-fog coating performances

# Technology Benchmarking & Best-fit Analysis

- Shortlisted technologies and benchmarked select technologies based on factors, such as duration of effect, cost, stage of commercialization, transparency, energy efficiency, etc.
- Reached out to inventors of the technology to fill in datagaps for performance parameters
- Selected 7-8 technologies finalized by the client and checked their commercial applicability

## Competitor Assessment

- Identified and analyzed top 10 refrigerator door manufacturers on the following parameters:
  - Existing products
  - Features
  - Performance (energy saving, durable, transparent, etc.)
  - Pricing

## Key Findings

- Identified different anti-fog technologies that could be applied for various substrates (glass, plastic, etc.)
- Gained information regarding anti-fog coating developers offering anti-fog coating solutions
- Provided different test standards that are considered in testing/developing anti-fog solutions
- Provided details of competitor activities in terms of developing or selling of products with anti-fog properties

### Technological Landscape for Anti-fog Coatings

#### Research Methodology

#### Secondary Research

- Conducted desk research to understand anti-fog coating technologies
- Referred to paid databases and identified patents and scientific articles for anti-fog coating technologies

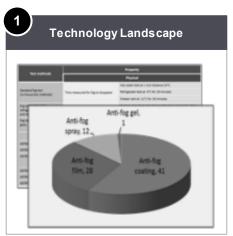
#### Primary Research

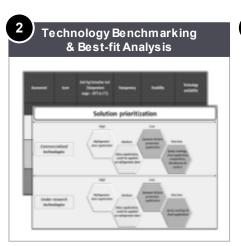
 Conducted 10+ telephonic interviews with inventors and developers of anti-fog coating technologies

#### **Benefits to Client**

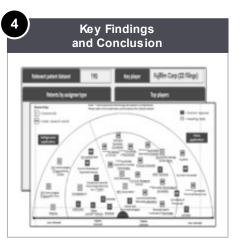
- This study helped the client identify the most relevant anti-fog technology based on the competitive benchmarking exercise.
- Identified technologies helped the client form partnerships with appropriate suppliers of anti-fog coating solutions.
- It also helped the client analyze various test standards and test conditions that govern testing and developing of anti-fog solutions.

#### Sample Analysis









### Thank you

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