

Transparent Conductive Films: Technologies and Global Markets

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Abstracts

REPORT SCOPE:

For the purpose of this report, transparent conductive films are defined as thin films of optically transparent and electrically conductive material. Transparent conductive films, or TCFs, are used as transparent electrodes in the manufacturing of touch screens, LCDs, cover electrodes for solar cells, organic light-emitting diodes, etc. TCFs consist of a transparent polymer-based substrate (50–150 μ m thick) on which a thin layer of conductive material is applied (less than 100 nm thick). Conductive layers usually employ metal oxides (InO₂:Sn, SnO₂:F), silver nanofibers, metal meshes (copper, silver, gold), graphene, conductive polymers (PEDOT: PSS) or carbon nanotubes. TCFs have become integral components of many devices, including electrochromic glass, solar panels, and LCD and OLED displays. This is a growing market.

Currently, transparent conductive films are mostly produced using indium tin oxide (ITO), a degenerately doped n-type semiconductor. However, due to advantages such as processability, stability and high conductivity, carbon nanotubes have received strong attention from electronics-industry researchers over the past several years as an alternative to ITO. Metal mesh is another material that is witnessing strong demand and growth due to several advantages, including high flexibility.

This report covers the global market for transparent conductive films and technologies for various end-user application industries. The market is broken down by application, type and material. Revenue forecasts from 2020 to 2025 are given for each segment, and regional markets with estimated values derived from manufacturers' total revenues.

The report also includes a discussion of the major players across each regional market. Further, it explains the major drivers and regional dynamics of the global TCF market and current trends within the industry.

The report concludes with a special focus on the vendor landscape and includes detailed profiles of the major vendors.

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The report covers following stakeholders in the market -

Chemicals and high-performance material manufacturers.

Electronics and electronic materials manufacturers.

Nanomaterial and nanotechnology companies.

Diversified industrial manufacturing companies.

The report excludes companies that are not manufacturers (distributors, suppliers, etc.). Some of these companies may brand the product as their own and resell it. However, the report excludes those companies as well to avoid double counting revenue. Post-sale service providers are excluded from the scope of the report as well.

For large diversified manufacturers, the report only considers (through derivation and assumption wherever required) transparent conductive film revenue.

The report begins by introducing the reader to how the global market for transparent conductive films and technologies is evolving and how various factors impact the market.

The report then proceeds to identify -

Primary forces with a direct impact on the market.

Secondary forces that have an indirect impact.

Key challenges that may hinder the growth of this market.

Key trends visible in the market.

Leading segments within the market.

REPORT INCLUDES:

61 tables

An overview of the global markets for transparent conductive films (TCFs) and technologies

Analyses of the global market trends with data corresponding to market size for 2019, estimates for 2020, and projections of compound annual growth rates (CAGRs) through 2025

Latest information on major market drivers, opportunities and challenges, industry chain structure, regulatory and environmental updates, macroeconomic trends, and technological advancements that are affecting the overall marketplace

Emphasis on importance of scientific research, product innovation, indium tin oxide (ITO) in TCFs processing, applications of graphene-based TCFs, and feasibility study of carbon nanotubes

Identification of the companies that are best positioned to meet this demand because of their proprietary technologies, strategic alliances or other advantages

An exhaustive patent analysis covering significant allotments of the U.S. patents

Competitive landscape of the global market, market share analysis of leading companies encompassing their successful marketing strategies, key

contribution, and recent developments

Comprehensive company profiles of leading market participants, including C3Nano, Canatu Oy, GEOMATEC Co. Ltd., Kaneka Corp., TDK Corp., and Toray Advanced Film Co., Ltd.

Contents

CHAPTER 1 INTRODUCTION

Study Goals and Objectives
Reasons for Doing This Study
Scope of Report
Information Sources
Methodology
Geographic Breakdown
Analyst's Credentials
BCC Custom Research
Related BCC Research Reports

CHAPTER 2 SUMMARY AND HIGHLIGHTS

CHAPTER 3 MARKET AND TECHNOLOGY BACKGROUND

Overview
Key Market Drivers
Increasing Demand and Market for Smartphones
Growing Market for Flexible Devices
Growing Wearables Market
Strong Growth of the Solar Cells and Solar Energy Market
Market Challenges
Depleting Indium Resources
High Price of Certain ITO Alternatives
Other Issues Related to Certain ITO Alternatives
Key Trends and New Developments
Strong Continued Growth in the Asia-Pacific
Growing Focus on Non-ITO
Hybrid Transparent Conductive Films (TCFs)
End Uses
Global Market Forecast for TCFs and Technologies

CHAPTER 4 MARKET BREAKDOWN BY END USE

Smartphones
Tablets

Laptops
LCDs
Wearables
Other End Uses

CHAPTER 5 MARKET BREAKDOWN BY MATERIAL

Indium Tin Oxide (ITO)
Non-ITO
Hybrid Materials and Technologies
Graphene
Carbon Nanotube
Silver Nanowire
Metal Mesh

CHAPTER 6 MARKET BREAKDOWN BY APPLICATION SEGMENT

Touch-Based Applications
Non-touch Applications

CHAPTER 7 MARKET BREAKDOWN BY REGION

North America
United States
Canada
Others
Europe
Germany
France
United Kingdom
Sweden
Asia-Pacific
Japan
China
Taiwan
South Korea
Middle East and Africa
South Africa
United Arab Emirates

Saudi Arabia

CHAPTER 8 INDUSTRY STRUCTURE

Supply Chain Analysis

Competitive Structure

Chemical and High-Performance Materials Manufacturers

Electronics and Electronic Material Manufacturers

Nanomaterial and Nanotechnology Companies

Diversified Industrial Manufacturing Companies

Analysis of the Global Market for TCFs

Power of Suppliers

Power of Buyers

Competition among Existing Players

Threat of New Entrants

Threat of Substitutes

CHAPTER 9 COMPANY PROFILES

ABRISA TECHNOLOGIES

ACS MATERIAL LLC

C3NANO

CAMBRIOS ADVANCED MATERIALS

CANATU OY

CHASM ADVANCED MATERIALS

DONTECH INC.

EVAPORATED COATINGS INC.

GEOMATEC CO., LTD.

GENESINK

KANEKA CORP.

KIMOTO CO., LTD.

MATERION CORP.

METAMATERIAL INC. (META)

MICROCONTINUUM INC.

NITTO DENKO CORP.

NOVARIALS CORP.

OIKE & CO., LTD.

TDK CORP.

TEIJIN LTD.

TORAY ADVANCED FILM CO., LTD.
TOYOBO CO., LTD.

List Of Tables

LIST OF TABLES

Summary Table: Global Market for Transparent Conductive Films and Technologies, by End Use, Through 2025

Table 1: Global Market for Transparent Conductive Films and Technologies, Through 2025

Table 2: Global Market for Transparent Conductive Films and Technologies, by End Use, Through 2025

Table 3: Global Market Shares of Transparent Conductive Films and Technologies, by End Use, 2019

Table 4: Global Market Shares of Transparent Conductive Films and Technologies, by End Use, 2020

Table 5: Global Market Shares of Transparent Conductive Films and Technologies, by End Use, 2025

Table 6: Global Market for Transparent Conductive Films and Technologies for Smartphones, Through 2025

Table 7: Global Market for Transparent Conductive Films and Technologies for Tablets, Through 2025

Table 8: Global Market for Transparent Conductive Films and Technologies for Laptops, Through 2025

Table 9: Global Market for Transparent Conductive Films and Technologies for LCDs, Through 2025

Table 10: Global Market for Transparent Conductive Films and Technologies for Wearables, Through 2025

Table 11: Global Market for Transparent Conductive Films and Technologies for Other End Uses, Through 2025

Table 12: Global Market for Transparent Conductive Films and Technologies, by Material, Through 2025

Table 13: Global Market Shares of Transparent Conductive Films and Technologies, by Material, 2019

Table 14: Global Market Shares of Transparent Conductive Films and Technologies, by Material, 2020

Table 15: Global Market Shares of Transparent Conductive Films and Technologies, by Material, 2025

Table 16: Global Market for ITO-Based Transparent Conductive Films and Technologies, Through 2025

Table 17: Global Market for Non-ITO-Based Transparent Conductive Films and

Technologies, Through 2025

Table 18: Global Market for Transparent Conductive Films and Technologies, by Application Segment, Through 2025

Table 19: Global Market Shares of Transparent Conductive Films and Technologies, by Application Segment, 2019

Table 20: Global Market Shares of Transparent Conductive Films and Technologies, by Application Segment, 2020

Table 21: Global Market Shares of Transparent Conductive Films and Technologies, by Application Segment, 2025

Table 22: Global Market for Touch-Based Transparent Conductive Films and Technologies, Through 2025

Table 23: Key Companies in Touch Application Areas

Table 24: Global Market for Non-touch Transparent Conductive Films and Technologies, Through 2025

Table 25: Some Key Companies in Non-touch Application Areas

Table 26: Global Market for Transparent Conductive Films and Technologies, by Region, Through 2025

Table 27: Global Market Shares of Transparent Conductive Films and Technologies, by Region, 2019

Table 28: Global Market Shares of Transparent Conductive Films and Technologies, by Region, 2020

Table 29: Global Market Shares of Transparent Conductive Films and Technologies, by Region, 2025

Table 30: North American Market for Transparent Conductive Films and Technologies, by End Use, Through 2025

Table 31: North American Market for Transparent Conductive Films and Technologies, by Material, Through 2025

Table 32: North American Market for Transparent Conductive Films and Technologies, by Application Segment, Through 2025

Table 33: North American Market for Transparent Conductive Films and Technologies, by Country, Through 2025

Table 34: U.S. Market for Transparent Conductive Films and Technologies, Through 2025

Table 35: Key Companies Headquartered in the U.S.

Table 36: Canadian Market for Transparent Conductive Films and Technologies, Through 2025

Table 37: European Market for Transparent Conductive Films and Technologies, by End Use, Through 2025

Table 38: European Market for Transparent Conductive Films and Technologies, by

Material, Through 2025

Table 39: European Market for Transparent Conductive Films and Technologies, by Application Segment, Through 2025

Table 40: European Market for Transparent Conductive Films and Technologies, by Country, Through 2025

Table 41: German Market for Transparent Conductive Films and Technologies, Through 2025

Table 42: French Market for Transparent Conductive Films and Technologies, Through 2025

Table 43: U.K. Market for Transparent Conductive Films and Technologies, Through 2025

Table 44: Swedish Market for Transparent Conductive Films and Technologies, Through 2025

Table 45: Asia-Pacific Market for Transparent Conductive Films and Technologies, by End Use, Through 2025

Table 46: Asia-Pacific Market for Transparent Conductive Films and Technologies, by Material, Through 2025

Table 47: Asia-Pacific Market for Transparent Conductive Films and Technologies, by Application Segment, Through 2025

Table 48: Asia-Pacific Market for Transparent Conductive Films and Technologies, by Country, Through 2025

Table 49: Key Companies with Operations in Japan

Table 50: Japanese Market for Transparent Conductive Films and Technologies, Through 2025

Table 51: Chinese Market for Transparent Conductive Films and Technologies, Through 2025

Table 52: Taiwanese Market for Transparent Conductive Films and Technologies, Through 2025

Table 53: South Korean Market for Transparent Conductive Films and Technologies, Through 2025

Table 54: Middle Eastern and African Market for Transparent Conductive Films and Technologies, by End Use, Through 2025

Table 55: Middle Eastern and African Market for Transparent Conductive Films and Technologies, by Material, Through 2025

Table 56: Middle Eastern and African Market for Transparent Conductive Films and Technologies, by Application Segment, Through 2025

Table 57: Middle Eastern and African Market for Transparent Conductive Films and Technologies, by Country, Through 2025

Table 58: South African Market for Transparent Conductive Films and Technologies,

Through 2025

Table 59: UAE Market for Transparent Conductive Films and Technologies, Through 2025

Table 60: Saudi Arabian Market for Transparent Conductive Films and Technologies, Through 2025

List Of Figures

LIST OF FIGURES

Summary Figure: Global Market for Transparent Conductive Films and Technologies, by End Use, 2019-2025

Figure 1: Global Market for Transparent Conductive Films and Technologies, 2019-2025

Figure 2: Global Market for Transparent Conductive Films and Technologies, by End Use, 2019-2025

Figure 3: Global Market Shares of Transparent Conductive Films and Technologies, by End Use, 2019

Figure 4: Global Market Shares of Transparent Conductive Films and Technologies, by End Use, 2020

Figure 5: Global Market Shares of Transparent Conductive Films and Technologies, by End Use, 2025

Figure 6: Global Market for Transparent Conductive Films and Technologies for Smartphones, 2019-2025

Figure 7: Global Market for Transparent Conductive Films and Technologies for Tablets, 2019-2025

Figure 8: Global Market for Transparent Conductive Films and Technologies for Laptops, 2019-2025

Figure 9: Global Market for Transparent Conductive Films and Technologies for LCDs, 2019-2025

Figure 10: Global Market for Transparent Conductive Films and Technologies for Wearables, 2019-2025

Figure 11: Global Market for Transparent Conductive Films and Technologies for Other End Uses, 2019-2025

Figure 12: Global Market for Transparent Conductive Films and Technologies, by Material, 2019-2025

Figure 13: Global Market Shares of Transparent Conductive Films and Technologies, by Material, 2019

Figure 14: Global Market Shares of Transparent Conductive Films and Technologies, by Material, 2020

Figure 15: Global Market Shares of Transparent Conductive Films and Technologies, by Material, 2025

Figure 16: Global Market for ITO-Based Transparent Conductive Films and Technologies, 2019-2025

Figure 17: Global Market for Non-ITO Transparent Conductive Films and Technologies,

2019-2025

Figure 18: Global Market for Transparent Conductive Films and Technologies, by Application Segment, 2019-2025

Figure 19: Global Market Shares of Transparent Conductive Films and Technologies, by Application Segment, 2019

Figure 20: Global Market Shares of Transparent Conductive Films and Technologies, by Application Segment, 2020

Figure 21: Global Market Shares of Transparent Conductive Films and Technologies, by Application Segment, 2025

Figure 22: Global Market for Touch-Based Transparent Conductive Films and Technologies, 2019-2025

Figure 23: Global Market for Non-touch Transparent Conductive Films and Technologies, 2019-2025

Figure 24: Global Market for Transparent Conductive Films and Technologies, by Region, 2019-2025

Figure 25: Global Market Shares of Transparent Conductive Films and Technologies, by Region, 2019

Figure 26: Global Market Shares of Transparent Conductive Films and Technologies, by Region, 2020

Figure 27: Global Market Shares of Transparent Conductive Films and Technologies, by Region, 2025

Figure 28: North American Market for Transparent Conductive Films and Technologies, by End Use, 2019-2025

Figure 29: North American Market for Transparent Conductive Films and Technologies, by Material, 2019-2025

Figure 30: North American Market for Transparent Conductive Films and Technologies, by Application Segment, 2019-2025

Figure 31: North American Market for Transparent Conductive Films and Technologies, by Country, 2019-2025

Figure 32: U.S. Market for Transparent Conductive Films and Technologies, 2019-2025

Figure 33: Canadian Market for Transparent Conductive Films and Technologies, 2019-2025

Figure 34: European Market for Transparent Conductive Films and Technologies, by End Use, 2019-2025

Figure 35: European Market for Transparent Conductive Films and Technologies, by Material, 2019-2025

Figure 36: European Market for Transparent Conductive Films and Technologies, by Application Segment, 2019-2025

Figure 37: European Market for Transparent Conductive Films and Technologies, by

Country, 2019-2025

Figure 38: German Market for Transparent Conductive Films and Technologies, 2019-2025

Figure 39: French Market for Transparent Conductive Films and Technologies, 2019-2025

Figure 40: U.K. Market for Transparent Conductive Films and Technologies, 2019-2025

Figure 41: Swedish Market for Transparent Conductive Films and Technologies, 2019-2025

Figure 42: Asia-Pacific Market for Transparent Conductive Films and Technologies, by End Use, 2019-2025

Figure 43: Asia-Pacific Market for Transparent Conductive Films and Technologies, by Material, 2019-2025

Figure 44: Asia-Pacific Market for Transparent Conductive Films and Technologies, by Application Segment, 2019-2025

Figure 45: Asia-Pacific Market for Transparent Conductive Films and Technologies, by Country, 2019-2025

Figure 46: Japanese Market for Transparent Conductive Films and Technologies, 2019-2025

Figure 47: Chinese Market for Transparent Conductive Films and Technologies, 2019-2025

Figure 48: Taiwanese Market for Transparent Conductive Films and Technologies, 2019-2025

Figure 49: South Korean Market for Transparent Conductive Films and Technologies, 2019-2025

Figure 50: Middle Eastern and African Market for Transparent Conductive Films and Technologies, by End Use, 2019-2025

Figure 51: Middle Eastern and African Market for Transparent Conductive Films and Technologies, by Material, 2019-2025

Figure 52: Middle Eastern and African Market for Transparent Conductive Films and Technologies, by Application Segment, 2019-2025

Figure 53: Middle Eastern and African Market for Transparent Conductive Films and Technologies, by Country, 2019-2025

Figure 54: South African Market for Transparent Conductive Films and Technologies, 2019-2025

Figure 55: UAE Market for Transparent Conductive Films and Technologies, 2019-2025

Figure 56: Saudi Arabian Market for Transparent Conductive Films and Technologies, 2019-2025

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