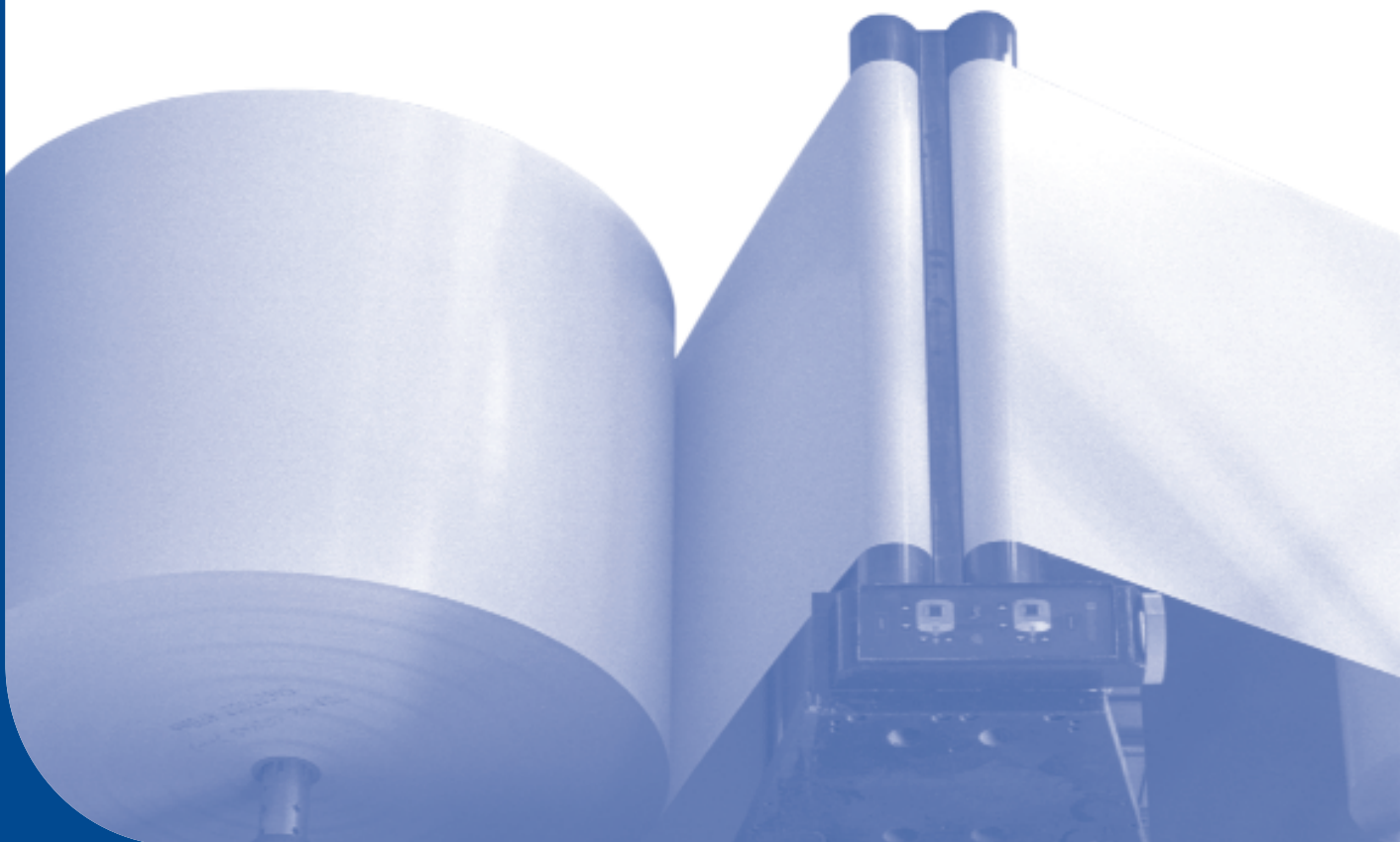




WORLD GRAPHIC PAPERS

DECEMBER 2021



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Sources and Acknowledgement

The EMGE WORLD GRAPHIC PAPERS report contains data and 5-year forecasts for paper demand, supply and trade around the world.

To compile these reports, we have used an extensive range of sources, including all published information available to EMGE & Co. Ltd. In addition to published data, we have referred to much industry data, which companies have been willing to share with us non-confidentially. Furthermore, we have applied our own market research resources to gather additional information.

The EMGE databases are updated daily. We publish these long-term forecasts twice a year (Spring/Summer and Autumn/Winter), with new data and revised 5-year forecasts.

The forecast timescale in this report is 2020 to 2025.

Definitions

Paper activity data are based on Volumes as sold, measured in metric tonnes (data have been converted from short tons to metric tonnes where appropriate).

The grades referred to in this study encompass Graphic Paper grades as described below in their respective definitions (*some regional differences in definition do exist*).

Coated Woodfree (CWF) - includes coated Woodfree printing & writing papers (<10% mechanical pulp), generally in the basis weight range 80-300gsm; both 1 & 2-side coated free in sheets & reels are included.

Uncoated Woodfree (UWF) - includes uncoated Woodfree printing & writing papers (<10% mechanical pulp), generally in the basis weight range 60-150gsm; in folio sheets, reels and cut-size, covering both bulk grades and uncoated specialities.

Coated Mechanical (CM) - includes offset and gravure coated woodcontaining printing & writing papers (>10% mechanical pulp), generally in the basis weight range 54-80gsm; but also includes ultra-lightweight coated & heavyweight coated woodcontaining (as well as LWC & MWC) in sheets & reels.

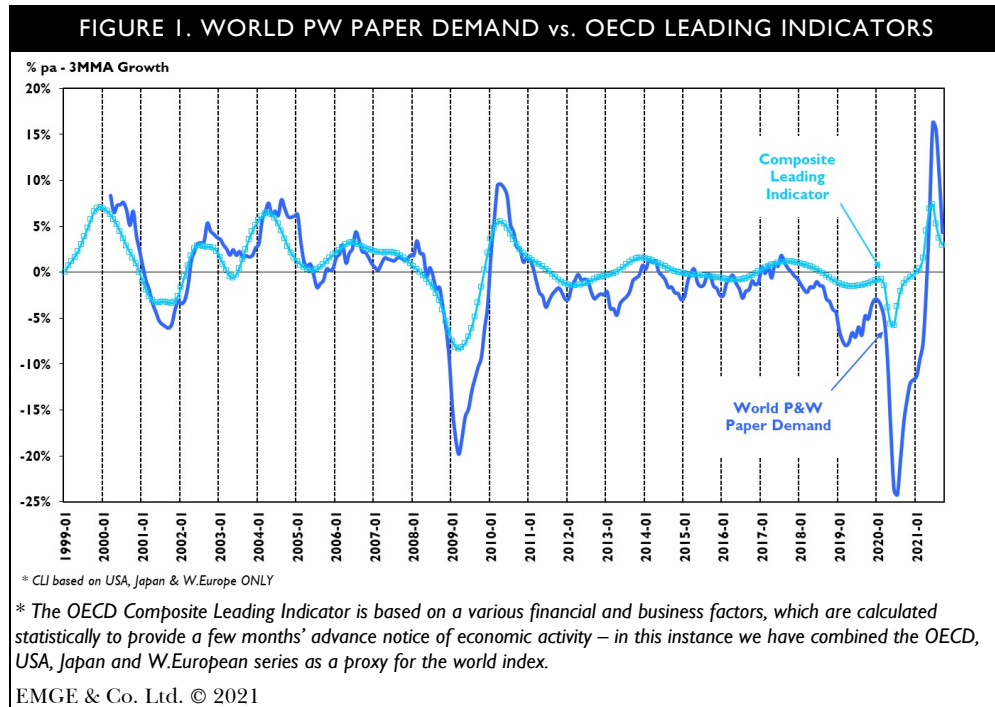
Uncoated Mechanical (UM) - includes offset and gravure uncoated woodcontaining printing & writing papers, generally in the basis weight range >54gsm (e.g. SC Magazine), but including Directory, Improved Newsprint and other lightweight grades.

Newsprint - encompasses Standard Newsprint, between 40 – 48.8 gsm, up to brightness 59° ISO (*some regional differences in definition do exist*).

Coated =	Coated Mechanical + Coated Woodfree
Woodfree =	Uncoated Woodfree + Coated Woodfree
Printing & Writing (PW) =	Uncoated Mechanical + Coated Mechanical + Coated Woodfree + Uncoated Woodfree
Graphic Paper =	Printing & Writing + Newsprint
Demand / Consumption -	Calculated as Production + Imports - Exports
Production / Output -	Paper mill saleable production
Trade -	Net Exports, i.e. Production - Consumption
Capacity -	Annual Machine Capacity (technical, not market, conditions)
Operating Ratio -	Theoretical Ratio of Production to Capacity
PM -	Paper Machine
tpa –	Tonnes per annum (capacity)

Details of Country groupings in the Regional Tables are shown in the Country Data World-wide section.

Report Contents / Introduction



EMGE's WORLD GRAPHIC PAPERS (WGP) report provides a unique and comprehensive database of world markets, assessing the current situation and the market outlook to create an objective update of the prospects for world Graphic Paper markets – i.e. **Coated Woodfree, Uncoated Woodfree, Coated Mechanical, Uncoated Mechanical** (including Improved Newsprint) and (Standard) **Newsprint**.

The report analyses the latest data and developments in the markets, reviews demand prospects and provides updated forecasts of Demand, Trade, Output, Capacity and Operating Ratios, by paper grade, for each region and globally. The forecast timescale is 2020 to 2025.

We also provide country-by-country data for 2020. In addition, WGP incorporates the latest capacity changes, investments and M&A activity. The report provides detailed rankings of Leading Suppliers, by paper grade, region and total. Great care has been taken to assess machine capacity in detail. The capacity data used are based on announced, financed and confirmed plans, as well as some assumptions and forecasts made by EMGE (e.g. unspecified closures). The report provides additional information on all announced plans, whether decided or not (see tables of Machine Investment Listings).

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Publication Papers & Prices



Regions: Germany
UK
USA

Paper Grades: Newsprint, LWC, SC

Information: Prices
Market Analysis
Demand
Capacity Changes
Supply/Demand Balance

Time Period: 3 Years Ahead



Regions: Global

Paper Grades: Newsprint

Information: Market Analysis
Demand
Capacity Changes
Supply/Demand Balance
Leading Suppliers List

Time Period: 5 Years Ahead
Relevant History



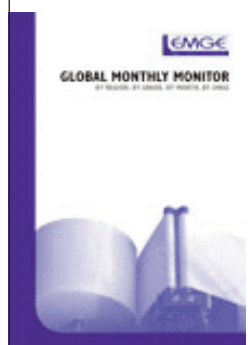
Regions: Global

Paper Grades: Newsprint

Information: Latest Pricing
Demand
Capacity Changes
Supply/Demand Balance
Market Analysis

Time Period: Current Month

Monthly Monitors

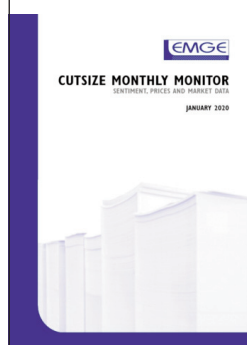


Regions: Global

Paper Grades: Coated Woodfree
Uncoated Woodfree
Coated Mechanical
Uncoated Mechanical

Information: Demand & Drivers
Shipments
Capacity
Supply/Demand Balance
Prices

Time Period: Current Month
Recent History



Regions: Western Europe

Paper Grades: UWF Cut Size

Information: Prices
Inventories
Demand
Delivery Times
Capacity Changes
Supply/Demand Balance

Time Period: Current Month
Recent History

Long-Term Forecasts



Regions: Global

Paper Grades: Coated Woodfree
Uncoated Woodfree
Coated Mechanical
Uncoated Mechanical

Information: Market Analysis
Demand
Capacity Changes
Supply/Demand Balance
Leading Suppliers List

Time Period: 5 Years Ahead
Relevant History



Regions: Western Europe
Eastern Europe
Russia

Paper Grades: Coated Woodfree
Uncoated Woodfree

Information: Market Analysis
Demand
Capacity Changes
Supply/Demand Balance
Leading Suppliers List

Time Period: 5 Years Ahead
Relevant History