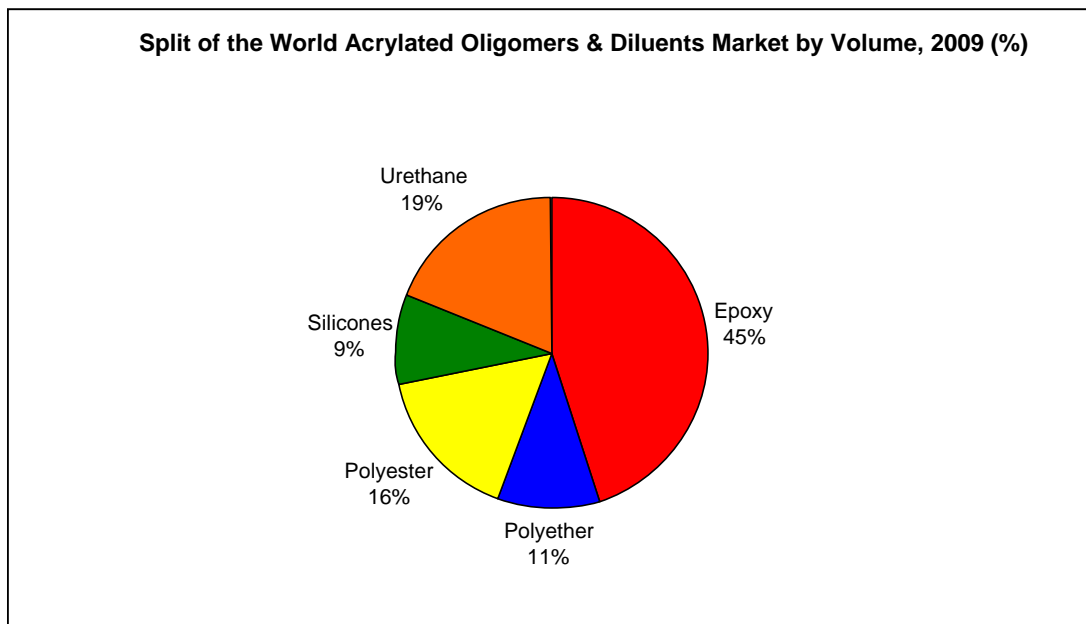




GLOBAL OVERVIEW OF THE RADIATION CURING MARKET

IAL Consultants is pleased to announce the availability of a new publication for the radiation-curable sector, entitled *Global Overview of the Radiation Curing Market*. The study provides an overview of the 2009 market sizes for radiation-curable raw materials and formulations, together with trends which are driving these two segments.

The radiation-curable raw material market reached 378,000 tonnes in 2009, being led by the acrylated oligomers and diluents segment, which accounts for 43% of all the raw materials in use; functional monomers comprise one-third of the market and the near-quarter of the remaining market is occupied by non-acrylated compounds and photoinitiators. The manner in which the acrylated oligomers and diluents segment breaks down is highlighted in the chart below:



Source: IAL Consultants

The use of most types of radiation-curable raw materials is growing at between 3% and 5% per year.

The global market for formulated radiation-curable products amounted to just over 464,000 tonnes in 2009, with substantial variation in the importance of the different product segments between the main regions of the world. In the EMEA region, industrial coatings represent the largest segment at 85,740 tonnes, while in the Americas, the graphic arts segment is the largest at 55,900 tonnes. The regional Asia-Pacific market is led by opto-electronics applications (91,850 tonnes), while the fourth key application segment of radiation-curable adhesives is the minnow in every region, amounting to a global market of just over 16,900 tonnes. Little change is to be expected in any of these placings and strengths over the next five years; the Asia-Pacific market is expected to outpace the other two regional markets in terms of growth, coming in at between 5 and 6% per year.

Some of the trends and opportunities identified in the report are highlighted below:

- Sustainability is increasingly important in the European market, and for that reason deinking is becoming ever more important. In addition, suppliers are looking into including renewable raw materials into their product portfolio.
- Good growth in UV-curable inks is expected from many emerging Eastern European markets such as Russia and some of the smaller countries like Uzbekistan and Kazakhstan continue to demonstrate good growth that is also expected to continue in the future.
- In North America, the fastest growing technology is digital, where good growth opportunities exist in 100% UV and low viscosity water-based UV chemistries. Conductive inks are also receiving an increasing amount of attention.
- Japanese companies have looked to China for investment opportunities and many have presence and manufacturing there. Multinational corporations such as Toyo Ink, DIC Corporation, Sakata INX and T&K Toka all have long-established relationships in China, while Flint Group has made significant inroads in the past 10 years. However, production costs have started to grow in China as well and therefore the many Japanese suppliers are turning their interest to other Asian countries such as Thailand, Vietnam and India.
- India is another key area of opportunity for ink manufacturers. UV-curing inks were introduced to the Indian market a few years ago but have not gained a significant market share. Not many printers are using UV inks for screen graphics application; the majority of them are predominantly using solvent-based inks. Unless there is pressure from the print buyers to adopt environment friendly practices, the market will continue to be dominated by solvent-based inks.
- In the flooring sector, nanomaterials are used in low VOC-binders that cure at ambient temperature or with UV-radiation, for both factory production of parquet or for maintenance of existing wooden floors. Nanograde colloidal silica gives the coating improved abrasion and scratch resistance, drying speed and hardness.
- There is a clear geographic split in the EMEA region when it comes to the use of UV-curable PUDs. It has been estimated that up to 75% of these products are consumed within the northern part of Europe, mainly Nordic countries and Germany. These countries have long traditions with wood-based products and also have a much more strict approach to environmental, health and safety issues

than the more conservative Southern European countries such as Italy and Spain. There is no reported demand for UV PUDs in the Middle East.

- In the Russian wood coatings market, old-fashioned technologies are in plentiful supply and new technologies are implemented as a result of importation. As with most countries, the trend will be towards the greater use of water-based and UV-curable coatings, although the investment needed for UV-curing in Russia is a major hurdle in that area of the market. Nitrocellulosics and acid-catalysed types are in decline.

Global Overview of the Radiation Curing Market from IAL Consultants has the following contents:

1. Introduction
2. Executive Summary
3. Radiation Curing Technology
4. Global Market for Radiation Curing Raw Materials
5. Global Market for Radiation Curing Products
6. Suppliers of Radiation Curing Materials
7. Suppliers of Radiation Curing Equipment

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