MITSUI CHEMICALS GROWING DIVERSIFICATION IN THE OPHTHALMIC INDUSTRY

With roots tracing back to 1912, Mitsui Chemicals, Inc., headquartered in Tokyo (Japan), is a leading manufacturer and supplier of value-added specialty chemicals, plastics and performance materials for multiple industries including agriculture, mobility, building and civil engineering, electronics, energy, healthcare and packaging. Mitsui Chemicals has more than 30 years of experience in the development and production of innovative premium high-index optical lens materials under the MR series brand name (MR-8, MR-7, MR-10, MR-174).



MR SERIES - HIGH REFRACTIVE INDEX MONOMERS FOR PREMIUM OPHTHALMIC LENSES

The MR[™] series is a line of optical materials with high refractive index, high abbe number, low specific gravity and high impact resistance. The lens material is suitable for ophthalmic lenses and is known as the first thiourethane based high-index lens material. Offered in a variety of grades, MR series yields safe, clear and lightweight lenses for eyewear users. Due to its unique physical properties and characteristics, the eyeglass lens material can be used in a variety of lens applications.



MR series main characteristic: High Refractive Index for Thinner

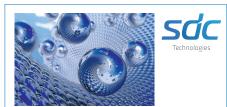
and Lighter Lenses

The optical lens material is suitable for use in the development of lightweight lenses. The MR series offers three different refractive index products (R.I. 1.60, 1.67, 1.74). With the inclusion of this high refractive index material, it is possible to achieve thinner lenses with the same strength as thicker lenses. Since 2008, Mitsui Chemicals has strategically expanded its ophthalmic operations, progressing towards a total solution-based company for eyewear applications from monomers (low-, medium- and

high-index as well as photochromic systems), to abrasion resistant, anti-fog and UV-cure coating solutions by acquiring the most recognized brands in these areas of technology. Going forward, Mitsui Chemicals strives to be the global leader in the area of raw material supply for the ophthalmic industry. To become a one-stop shop or single solution for all eyewear application offerings to address the optical labs and optical retailer markets.

ACQUISITION OF SUBSIDIARY SDC TECHNOLOGIES; ABRASION-RESISTANT COATINGS

In 2008 Mitsui Chemicals acquired SDC Technologies, based in Irvine, California (USA), the pioneer of innovative performancebased abrasion resistant coatings used in a variety of applications from aerospace and automotive parts to eyewear.



Abrasion resistant coatings Innovative technology solutions improve product performance



Established in 1986, SDC Technologies develops, manufactures and globally distributes abrasion resistant coatings for application to plastic, glass and metals. These coatings add premium performance, appearance and durability to eyewear, sunglasses, safety lenses, and other custom applications. In 1990 SDC Technologies expanded into the European market with investment in product distribution, marketing and technical resources. In 2008 SDC Technologies relocated and expanded headquarter manufacturing operations from Anaheim to Irvine, California. In 2013, SDC Technologies further expanded global operations with a new Singapore office to increase manufacturing capabilities, supply chain management, sales, customer care, and quality assurance for the Asia-Pacific region.



FSI COATING TECHNOLOGIES; ANTI-FOG COATINGS

In 2010 subsidiary SDC Technologies acquired FSI Coating Technologies, formerly Film Specialties, Inc., founded in 1986 to develop and market anti-fog scratch resistant hard coating, film and sheet products for commercial and industrial markets. A pioneering champion of condensation control material science, FSI Coating Technologies provides solutions to the automotive, commercial refrigeration, electronics, medical, safety, security, sunglass and sports eyewear industries.



In 2011 Mitsui Chemicals acquired Acomon AG, globally recognized for its lower index optical monomers RAV 7[®] used to provide exceptional clarity and durability. Acomon was carved out 2007 as the optical monomer business, formerly part of Chemtura in 2005, with origins dating back to AKZO in 1980 and Enichem in 1981. The comprehensive portfolio of Mitsui Chemicals MR series premium high-index, and Acomon's RAV 7 low-index optical lens materials combined with SDC Technologies innovative coatings allow us to deliver a complete product solution to the ophthalmic community.



2013-2014 ACQUISITIONS AND EXPANSION

In 2013 Mitsui Chemicals acquired a 51% share of KOC Solution established in 1999 as a leading Korean manufacturer and distributor of plastic optical lenses monomers to expand worldwide sales of its competitive edge in the mid and high-index lens market. The globally recognized KOC product range includes mid- and high-index, photochromic as well as impact resistant lens materials. This acquisition also provides opportunities for expansion in the growing Chinese market through the manufacturing and sales sites owned by KOC, which are located in areas where China's ophthalmic optical related businesses are concentrated.

In 2014 Mitsui Chemicals acquired Corning Incorporated's SunSensors operations to bolster its global ophthalmic lens materials business while breaking into the rapidly growing global



SunSensors photochromic lens material 2014 acquisition

photochromic lens market. SunSensors was developed in 1999 as one of the first plastic photochromic lens materials. The company will develop and sell competitive new photochromic lens materials.

SUNSENSORS - A PATENTED IN-MASS TECHNOLOGY FOR PLASTIC PHOTOCHROMIC LENSES

SunSensors is a patented in-mass technology for plastic photochromic lenses to mix the photochromic dye in the lens monomer. This patented technology is compatible with most anti-reflective (AR) and hard-coating (HC) treatments and has a middle index of 1.56. The lenses, with a transmission factor of 86% indoors in the visible range, are available in gray and brown. Under AS/NZS 1067, the lenses outdoors are classified as sunglass lens category. The SunSensors product lineup includes:



performance by high thermal dependence

New photochromic lens materials are under development by Mitsui Chemicals R&D, for regular updates, please check:

www.mitsuichem.com/service/healthcare/ healthcare materials/sunsensors/index.htm



Advancing UV cure technologies In high-performance abrasion resistant and tintable coatings

LENS TECHNOLOGY; **UV-CURE COATINGS**

In 2014 subsidiary SDC purchased a majority ownership of LTI Coating Technologies, LLC (formerly Lens Technology I, LLC) or (LTI) strengthening its advanced technology global expansion in high performance abrasion resistant coating solutions. LTI is the recognized leader in the development and manufacture of high performance, proprietary UV curable anti-scratch coatings for the ophthalmic market. LTI was formed in 1986 to address the optical industry's requirement for hard coatings and tintable coatings for plastic and polycarbonate lenses. LTI is a world leader in ophthalmic hard coatings with a major market share of the optical laboratory market and has received four Awards of Excellence from the Optical Laboratories Association for best in class coating equipment.

CONTINUOUS INNOVATION AND EXPANSION IN **OPHTHALMIC SOLUTIONS**

Mitsui Chemicals is on track to offer more and more ophthalmic solutions with every coming year. Through continuing investment in research and development, complementary acquisitions that create synergy, and forging strong strategic partnerships to accelerate technological innovation, Mitsui Chemicals goal is to become the premiere leader in raw material supply for the eyewear industry for decades to come.

- * MRTM Series: MR-8TM, MR-7TM, MR-10TM, MR-174TM, and SunSensorsTM are registered trademarks of Mitsui Chemicals, Inc.
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