

## **Press Release**

# **ZEISS Makes Car Driving Safer**

# The new all-day ZEISS DriveSafe eyeglass lenses provide wearers with more safety through better vision in challenging driving conditions

Aalen, October 1, 2015 - - - Most spectacle wearers are also car drivers and experience discomfort or vision impairment when it gets dark, rainy or misty. The disproportionately large number of traffic accidents after nightfall shows their concerns are justified. ZEISS DriveSafe lenses are designed to maximise safety and comfort for car-driving spectacle wearers and can nevertheless be used all day. A new premium coating and a state-of-the art lens design technology make this possible. The new lenses address the major challenges facing spectacle wearers while driving in difficult light and weather conditions, resulting from dim light, fog or rain.

Discomfort glare is very often attributable to the spread of modern car headlights and to the fact that the driver's sight is changed because their eyes have to adapt to dusk and darkness. The ZEISS DuraVision DriveSafe antireflective coating has been designed for a light transmission spectrum that optimises protection against discomfort glare in the presence of Xenon/ HID and LED headlights. Although the new coating can reduce perceived glare by reducing a portion of the visible spectrum, it still ensures maximum ability to see the surrounding environment for safe night driving.

Driving presents a complex and changing set of requirements, may it be varying light or weather conditions. Drivers must contend with a rapidly alternating set of circumstances that require them to constantly redirect their attention. The new ZEISS DriveSafe lens design was established to provide excellent visual dynamics. Therefore the lens design is optimized for adjusted pupil size as well as for uncompromised distance vision. For progressive lenses additional optimized vision zones allow for quick transition in the intermediate zone and provide the wearer with appropriate near vision for typical tasks in all day life. Taking all these factors into account, the DriveSafe designs enhance the possibility of comfortable, unstressed driving and are entirely suitable for all-day use for all kinds of activities.

ZEISS Luminance Design Technology represents one of the latest innovation by ZEISS to advance the precision of spectacle lens design. By considering the vision needs of wearers in varying light conditions, it optimizes ZEISS



DriveSafe for continuous wear, ensuring clarity in both bright and low light conditions. It is an innovative method of lens computation and optimizes dioptric powers using the entire beam of light passing through the pupil. The result is a smoothening of dioptric microstructures for the moving eye that leads to improvement of overall clarity compared to traditional methods. For progressive lenses this optimization ensures a smooth transition from central to peripheral vision zones of the lens.

## Test wearers confirm high satisfaction with ZEISS DriveSafe

Wearer trials [1] were conducted to compare the effectiveness and acceptance of ZEISS DriveSafe lenses in a driving scenario. The trials reveal very high satisfaction levels for the new lenses. The factors that were assessed included overall satisfaction while driving, driving in the dark and twilight, dynamic vision in near, intermediate and far vision, perception of colours, and dazzle from headlights. 97% of the test subjects were satisfied with the new lenses when driving, 94% doing everyday tasks, e.g. work in the office.

[1] Internal wearer trial (ZEISS, Germany in 2014) with 50 subjects; and external wearer trials with 72 eye care professionals and consumers (Spain, 2014)

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### ZEISS

ZEISS is an internationally leading technology enterprise operating in the optics and optoelectronics industries. ZEISS develops and distributes lithography optics, measuring technology, microscopes, medical technology, eyeglass lenses, camera and cine lenses, binoculars and planetarium technology. With its solutions, the company constantly advances the world of optics and helps shape technological progress. The company is divided up into the six business groups Industrial Metrology, Microscopy, Medical Technology, Vision Care, Consumer Optics and Semiconductor Manufacturing Technology. ZEISS is represented in over 40 countries - with around 30 production sites, over 50 sales and service locations and about 25 research and development facilities. In fiscal year 2013/14 the company generated revenue approximating 4.3 billion euros with just under 25,000 employees. Founded in 1846 in Jena, the company is headquartered in Oberkochen, Germany. Carl Zeiss AG is the strategic management holding company that manages the ZEISS Group. The company is wholly owned by the Carl Zeiss Stiftung (Carl Zeiss Foundation). Further information at www.zeiss.com

#### Vision Care

As one of the world's leading manufacturers, the Vision Care business group combines ophthalmic expertise and solutions with an international brand. The business group develops and produces instruments and offerings for the entire eyeglass value chain. In fiscal year 2013/14 the business group generated revenue of 761 million euros with around 8,300 employees.