


Antiglare Filter (AGF) for Automobiles

Laboratory Name	CSIR - Central Scientific Instruments Organisation, Chandigarh
Brief Profile of Technology/Product	<p>Night driving is a real nightmare for all the drivers. Most of fatal road accidents occur at night and at dawn presumably because of the problem of poor visibility caused by blinding glare of the oncoming headlights, powerful road lights etc. The ultimate night driving solution is now available in the form of night driving filter. The Night Driving Filter (NDF) is an improved antiglare optical device for automobiles most useful during night driving. It is mounted in front of the driver on the automobiles windshield.</p> <p>The frequent blinding glare not only makes the driving difficult but also impairs the vision. The device has the provision to be flipped on the windshield at the eye level when in use and can be latched on to the vehicles ceiling when not required. The device comprises of a gradient density absorbing film deposited upon glass/plastic substrate by vacuum coating and also antireflection coating on both surfaces of the substrate.</p>
Returns/Benefits	<p>The filter used has a special type of graded coating and it is the uniqueness of the filter. The device is used during night driving to protect eyes from the blinding glare (excessive visible radiation and UV radiations) produced by the headlight of approaching vehicles.</p>
Application/Uses	<p>This filter is having a first-of-its kind glare reducing technique. This filter cuts down light intensity almost uniformly over the visible range, in the areas in front of the drivers eyes, where there is maximum occurrence of glare. At the same time it maintains high transmission at both ends of the filter to see the road signs and other passing vehicles thus enhancing road safety manifolds.</p>
Validation Level	<ul style="list-style-type: none"> • Prototype tested at various levels in real conditions. • Technology ready for transfer. • Development for large volume.
Salient technical features	<ul style="list-style-type: none"> • Highly durable gradient density absorbing film. • Glare/excessive light of the coming vehicles using high a low beam is reduced to comfortable viewing i.e. high beam reduce to 30% and low beam reduce to 40%.

	<ul style="list-style-type: none"> • Customized mounting.
IPR Status [also indicating the status of the patent (if any) in 2015]	<ul style="list-style-type: none"> i. <i>An Improved Antiglare Device For Automobile Useful During Night Driving</i> Country Granted: Germany (DE) Patent Number: 10196154 Date of Grant: 18/11/2010 ii. <i>An Improved Antiglare Device For Automobile Useful During Night Driving</i> Country Granted: Canada (CA) Patent Number: CA2377828 Date of Grant: 17/11/2009 iii. <i>An Improved Antiglare Optical Device</i> Country Granted: India (IN) Patent Number: 220363 Date of Grant: 27/05/2008 iv. <i>An Improved Antiglare Device For Automobile Useful During Night Driving</i> Country Granted: Korea (KR) Patent Number: 10-0748153 Date of Grant: 03/08/2007 v. <i>An Improved Antiglare Device For Automobile Useful During Night Driving</i> Country Granted: Australia (AU) Patent Number: 774644 Date of Grant: 14/10/2004 vi. <i>An Improved Antiglare Device For Automobile Useful During Night Driving</i> Country Granted: USA Patent Number: 6674587 Date of Grant: 13/01/2004 vii <i>An Improved Antiglare Device For Automobile Useful During Night Driving</i> Country Granted: China (CN) Patent Number: ZLO1801786
End product price (if not available, estimated price)	< Rs. 5,000.00

Technology/Product Collaborator	Development under DST funded project
Relevance of Technology in present times	During the driving in night, glare from the upcoming vehicles temporarily blinds the eyes of the driver, which is the main cause of large number of accidents and loss of valuable human life. Since its usage helps in reducing harmful glare, so, there is a large requirement of night driving filters around the globe.
Similar technology/product developed	There is no competing technology in the market.
Application/Uses	
Picture of the technology/product (if any, with good resolution)	<div style="text-align: center;">  <p>Fitment of NDF in the vehicles of different class</p> </div>