June 23, 2009

Mary D. Nichols
Chairman
Air Resources Board
1001 I Street
Sacramento, California 95814

Subject: AB32 Cool Car Glazing Proposed Regulation of May 8, 2009

Dear Ms.Nichols:

Strict compliance to Corporate Social Responsibility including environmental protection is a key attribute of the AGC Group. Climate change and possible irreversible impact of emissions in the atmosphere, especially carbon dioxide, is a global threat facing all of us. As a supplier to a number of industries, including the automotive industry, the AGC Group recognizes the importance of California Air Resources Board and is committed to support CARB to reduce the industry's carbon footprint in a measured and timely manner.

With respect to the May 8th 2009 draft of the "Cool Cars Standard and Test Procedures", AGC Group would like to submit the following:

Proposed 2012MY Windshield Regulation:

The intended technology requires a metallic layer within the windshield to reflect solar energy. This technology is available today and has been phased in over several years, especially in Europe but also in the United States, to meet consumer and environmental needs. The metallic layer is proven to interfere with radio wave signals, including keyless entry systems, garage door openers, cell phones, GPS, and other electronic systems. These electronic systems can continue to work if sufficient deletion areas of the metallic layer are provided. In turn, large number of deletions further complicates application and processing of the coating and adversely impacts the total energy transmission.

The complexity of applying this technology to 75% of 2012MY vehicles and 100% of 2013MY vehicles are, in our opinion, underestimated within the scope of the proposed regulation. Mass introduction of this complex technology to a large number of models thru redesign, preparation, tool up, validation and mass production will require a more measured lead-in timing. Based on our experience, we recommend a minimum of 3-year phase-in and preferred 4-year phase-in timeframe.

Proposed 2012MY Sidelite and Backlite Regulation:

Products and technology to meet the proposed regulation are available today. However, there is a need for more specific T_{TS} requirements beyond the 4mm reference thickness, especially for 5mm glass thickness where the proposed regulation would conflict with FMVSS requirements for minimum light transmission. We have communicated the details to CARB staff and are summarized below as follows:

	Light Transmittance ≥ 70% for Passenger Car (SL & BL) and Truck/SUV/CUV (FD)				Light Transmittance ≥ 70% for Truck/SUV/CUV (Rear of B-Pillar)			
Glass Thick (mm)	3	3.5	4	5	3	3.5	4	5
Tv %	77.1	75.3	72.5	62.8	25.2	23	17.1	12.3
CARB Draft	-	-	60	-	-	-	40	-
Equivalent Tts %	68	65	60	51	47	45	40	37
Proposed Tts %	70	65	60	60	50	45	40	40

Proposed 2012MY Sunroof Regulation:

CARB's current regulation of $T_{TS} \leq 30\%$ effective 2012MY is not achievable with the current temperable glass portfolio of raw materials. To achieve $T_{TS} \leq 30\%$, lamination technology similar to windshields must be applied. Laminated sunroofs can result in added weight compared to tempered versions, which can have adverse effect on vehicle fuel consumption, subsequent CO_2 emissions as well as vehicle handling. Laminated sunroofs will also require greater adoption of encapsulation technology. While this technology is currently available and found on current vehicles, mass adoption of this technology will require new tools at a significant investment for OEMs and suppliers, heavy development load and longer lead times. These factors will work against implementing an effective CO_2 reducing regulation by 2012MY, and would propose increasing the T_{TS} regulation, creating a phase-in period similar to windshields, or both.

Proposed 2014 Windshield Regulation:

We believe an enhanced metallic coating technology for 2014MY is highly likely to satisfy CARB regulation, we do not believe that it is the best technology and most cost effective solution. Again, we should not underestimate maturation and introduction of the coating

technology as well as the bending technology by 2014MY. We therefore strongly suggest postponing the introduction of this regulation to 2016MY after completing product validation.

Thank you for the opportunity to comment on this proposed regulation.

Sincerely,

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About AGC Automotive

AGC Automotive is part of the AGC Group, active in five business areas: automotive glass, flat glass, display, chemicals, and electronics & energy. The automotive glass division of AGC Group under its unified global brand, 'AGC Automotive', strives to provide quality products and services worldwide as an automotive parts and glazing supplier.

With 21 production plants in 14 countries in Japan-Asia, Europe and North America, AGC Automotive operates in a multi-cultural environment with employees from all over the world and has a top market share within the new vehicle market.

AGC Automotive offers all automotive related glazing such as windscreens, sidelights, backlights and sunroofs, in laminated and tempered structures. AGC Automotive also provides ready-to-assemble systems (fixation devices), higher value added functional systems (antennas, sensors, telematics) and enhanced property glazing (improved thermal, sound and vision comfort). AGC Automotive's service spans the entire value chain from design and development to the final production and supply.

To learn more, please visit us at www.agc-automotive.com