

# CeraGraphe™ AC

Anti-Corrosion Graphene Ceramic Coating



# MAG7

Technologies

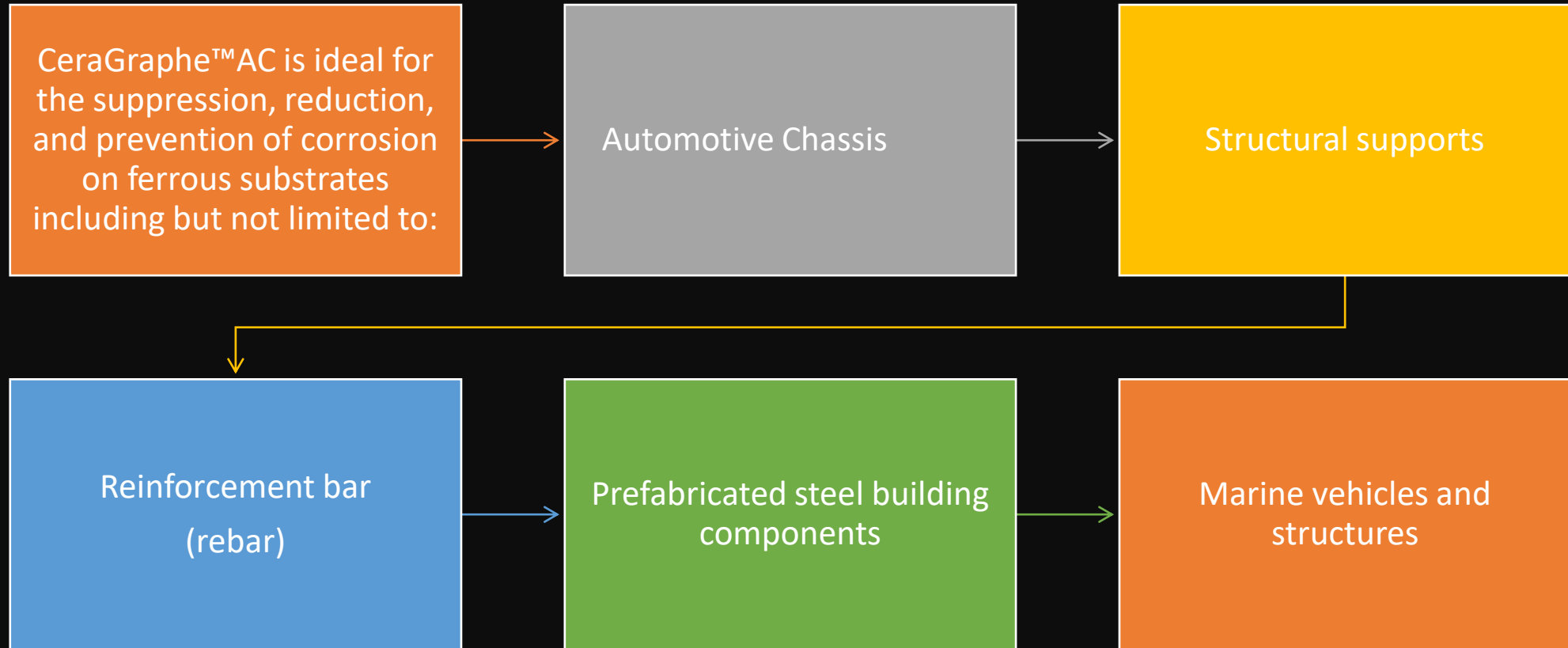
Advanced Materials and Coatings

# Synopsis of CeraGraphe™ AC



- CeraGraphe™ AC is a hybrid polysilazane-polysiloxane containing corrosion resistant inorganic performance coating
- Contains a proprietary organo-polysilazane binder system combined with a corrosion resistant ceramic matrix composite
- Utilizes patent pending graphene-polysilazane technology
- Uses industry leading submicron ceramic particle technology to provide application specific functionalities
- CeraGraphe™ AC is a 1k ambient cure direct to metal low V.O.C. containing performance coating. It can be manually or robotically spray applied and quickly switched to paint roller application for large surface areas.
- CeraGraphe™ AC has been formulated to resist corrosion and the spread of corrosion, extending the life of a myriad of susceptible substrates.
- Chromium and Zinc free

# Potential Target Markets





# Corrosion Resistance

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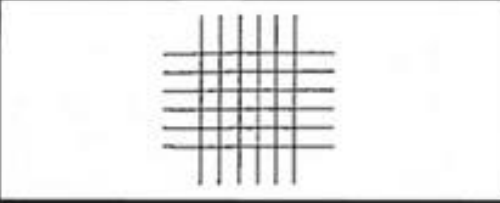
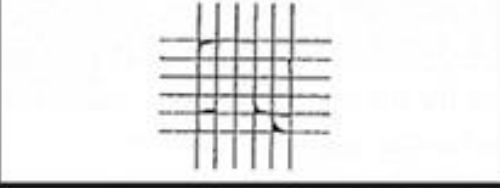
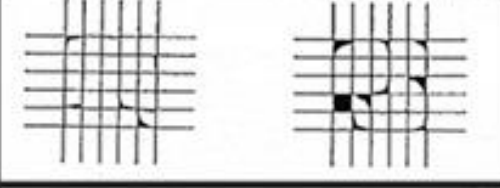
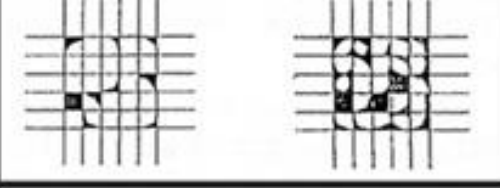
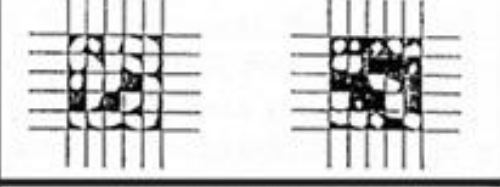
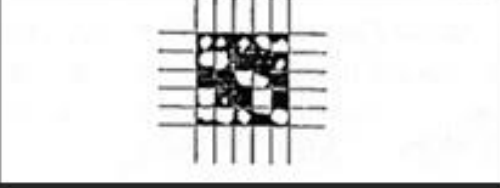
- CeraGraphe™ AC was tested for corrosion by ASTM B117 and evaluated using ASTM D610, D714, D1654 and G46-94

ASTM B117D Hours	General Red Rust Rating	Scribed Rating	Blister Rating
96	10	9	10
500	8	9	10
1,000	TBD	TBD	TBD



# Crosshatch Adhesion

- CeraGraphe™ AC requires the substrate to be sandblasted prior to application in order to maximize adhesion to the substrate
- CeraGraphe™ AC is rated at 5B adhesion in accordance with ASTM D3359 B

Classification	% of Area Removed	Surface of Cross-cut Area From Which Flaking has Occurred for 6 Parallel Cuts & Adhesion range by %
5B	0% None	
4B	Less than 5%	
3B	5 - 15%	
2B	15 - 35%	
1B	35 - 65%	
0B	Greater than 65%	



# Conical Mandrel Bend

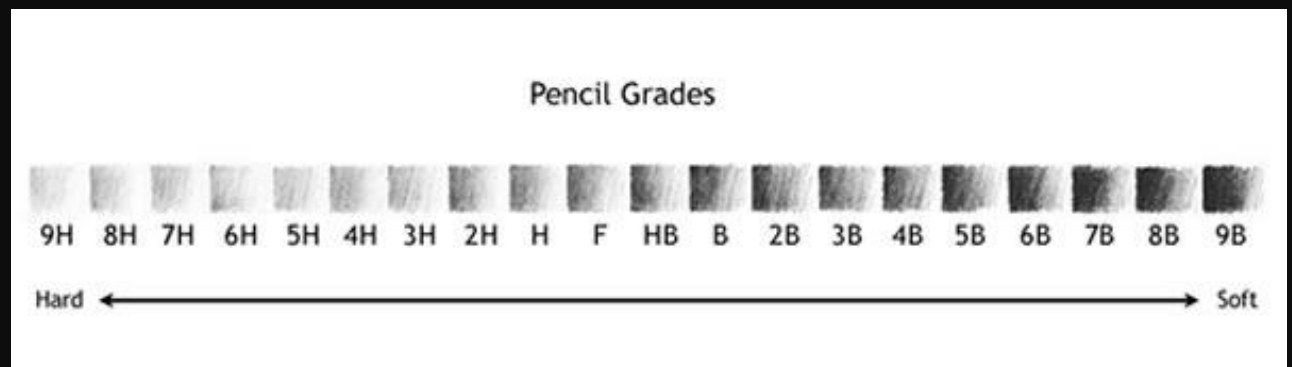
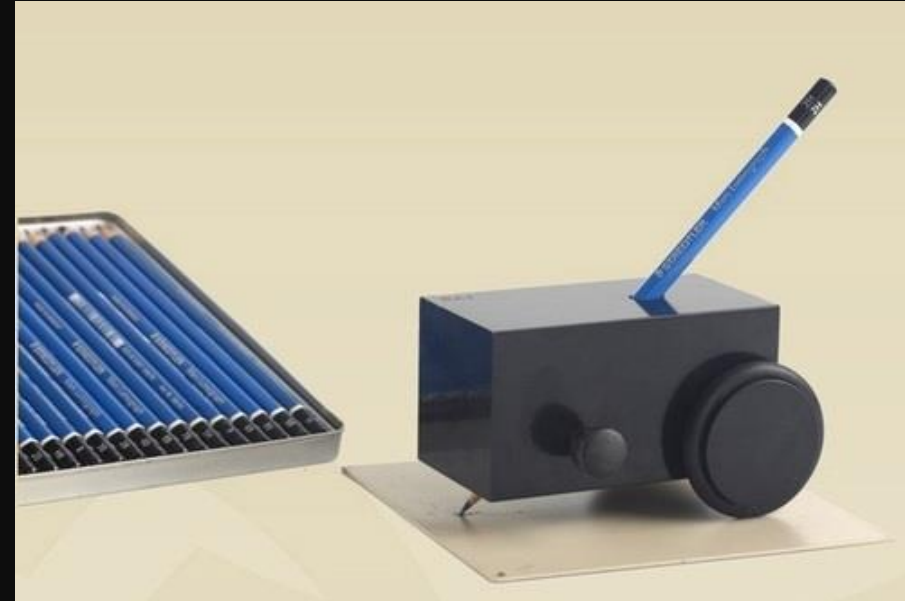
CeraGraphe™ AC was evaluated for conical mandrel bend using ASTM D522 and had 4.44mm of cracking at the narrow end of the mandrel



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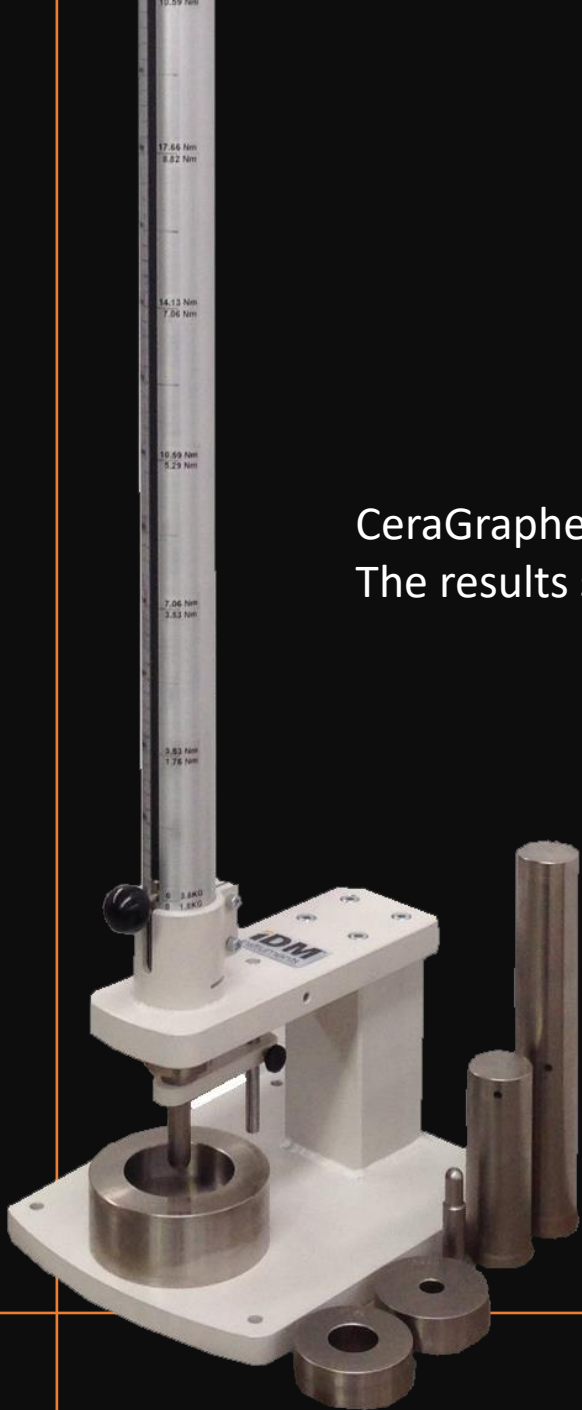
# Pencil Hardness

- CeraGraphe™ AC was evaluated for film hardness using ASTM D3363 at 3H



# Impact Resistance

CeraGraphe™ AC was evaluated for direct and indirect impact rating using ASTM D2794  
The results showed an impact resistance of 8 inch pounds





# Taber Abrasion Resistance

- CeraGraphe™ AC was evaluated for abrasion resistance using ASTM D4060-19
- The results showed a Taber abrasion resistance of 15mg/100cycles using CS-10 wheels and 1000g load



# UV Resistance



- ASTM D4587 is the ASTM to evaluate UV Resistance of paint and related coatings
- The pictures show the minimal change in color and gloss after 672 hours of UV exposure



# CeraGraphe™ AC FAQ

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- Top-of-the-line Corrosion Resistant Performance designed to last the lifetime of the part
- Patent-Pending graphene/polysilazane technology
- Inorganic, UV resistant, Low VOC, and shelf stable formulation
- Made in the USA
- Made exclusively by Mag 7 Technologies production facility allowing them to oversee strict quality control processes and manufacturing standards
- Production standards can be ramped to meet ANY customer demand
- CeraGraphe™ AC can be supplied in package options including 1, 5, 50, and 250 gallon quantities



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