AURORA Material Solutions™

PEOPLE. PARTNERS. POSSIBILITIES.

www.auroramaterialsolutions.com

Polymer Solutions for the Demands of AI Data Centers











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Data Centers Push Materials to Their Limits

Constant operation, escalating heat loads, advanced cooling systems, heavy vibration and stringent fire-safety requirements create challenges that ordinary materials aren't designed to handle.

That's where engineered polymers from Aurora Material Solutions stand apart.

As a leader in custom-engineered polymer compounds, we offer high-performing material solutions that thrive in the toughest environments. Backed by one of the industry's broadest portfolios, including rigid or flexible PVC and ETP formulations, we help manufacturers create products that are stronger, safer, more durable and more sustainable.

Our compounds are the foundation for data center infrastructure performance. Whether you're designing components for high-density AI facilities, power distribution systems, cooling infrastructure or cable management, we can deliver material solutions engineered to meet the unique challenges data centers face. Our polymer experts work closely with our partners to tailor formulations to the unique demands of each application, optimizing properties such as heat resistance, low-temperature performance, flame and smoke characteristics, durability and long-term reliability.



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Built to Support Growth & Development

- **One source:** Our breadth and depth of polymer options provide the basis for unlimited customized solutions. Our highly technical, engineering-focused organization can develop, test and certify solutions to match your application demands.
- **Speed to market:** Our on-site testing facilities are Data Acceptance Program (DAP) certified, meaning shorter lead times to meet UL yellow card requirements.
- **Supply chain excellence:** Our eight highly automated manufacturing facilities are strategically located across the U.S. and Canada – helping us develop and deliver compounds on your schedule.
- **Sustainable solutions:** We offer a comprehensive platform of recycled solutions as well as blended or sweetened compounds. Our industry leadership means we also look for ways to minimize the downstream impact of our products. We were the first North American PVC compounder to achieve +Vantage Vinyl GOLD status by the GreenCircle Certification system and we remain 100% compliant with the guiding principles of this important program.

AURORA ECOPLAST™

+VANTAGE VINYL VERIFIED GOLD

AI Data Centers Demand More.

Our Polymer Solutions Deliver Across Every Application Need:

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Cooling Infrastructure

Data center cooling is a hot topic in the U.S. – and for good reason. Cooling systems play a critical role in managing heat, particularly in AI-driven data centers with high power densities. Without effective thermal management, equipment reliability and operational stability are at risk.

Aurora Material Solutions offers engineered polymers that deliver the chemical resistance, thermal endurance, and mechanical performance required to maintain optimal operating conditions in high-density cooling environments. They also meet applicable American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) standards for long-term performance.

APPLICATIONS

- Immersion cooling systems
- Liquid cooling & piping
- Cooling fluid filtration
- Airside cooling equipment
- Aisle containment systems
- Ventilation & HVAC

COMMON MATERIAL SOLUTIONS

- PVC
- CPVC
- PC
- ABS





Computing Equipment

Computing is the heart of a data center, and components must not only be durable but also high performing.

Engineered polymers from Aurora Material Solutions offer superior thermal stability, electrical insulation, UL-rated flame retardancy approvals, and structural integrity to meet the rigorous demands of modern data center environments and mission-critical hardware.

APPLICATIONS

- Server & accelerator enclosures
- Server power components

COMMON MATERIAL SOLUTIONS

- PC & PC Alloys
- ABS



Networking Components

Networking equipment keeps your data center connected and secure. Materials must provide durability and structural integrity without causing interference.

Aurora Material Solutions compounds have been used extensively across a variety of electrical applications. They're proven to provide the electrical insulation, signal integrity and structural performance that's essential for reliable, high-bandwidth networking infrastructure.

APPLICATIONS

- Fiber optic & connection assemblies
- High-speed transceiver assemblies
- Network connectors & adapters
- Copper cabling & patch panel systems

COMMON MATERIAL SOLUTIONS

- PVC
- PBT
- PC & PC Alloys
- PEI
- ABS

Physical Infrastructure

From the building itself to every essential system inside, our materials provide the structural integrity and environmental resistance needed for mission-critical environments.

If your material selection is guided by industry standards like TIA-942 and BICSI 002 we can help assure you remain compliant. Our team can customize the materials you need to align with data center tier classifications and local building codes.



APPLICATIONS

- Drainage & containment
- Airflow management
- Instrumentation & controls
- Grounding systems
- Access control panels
- Cable management
- Raised floor systems

COMMON MATERIAL SOLUTIONS*

- PVC
- PC & PC Alloys

** Meet TIA-942 and BICSI 002 standards*

Storage

Storage systems are essential for data retention and management. These technologies support transactional, analytical and archival workloads – and must be up to the structural, vibration and thermal challenges they'll face.

Aurora Material Solution offers engineered polymers that overcome constant vibration and temperature extremes. Our solutions are engineered for strength, thermal resilience and mechanical precision. UL-rated flame retardancy options are also available. Flexible PVC options help with signal integrity and reliable high-speed data interconnection.

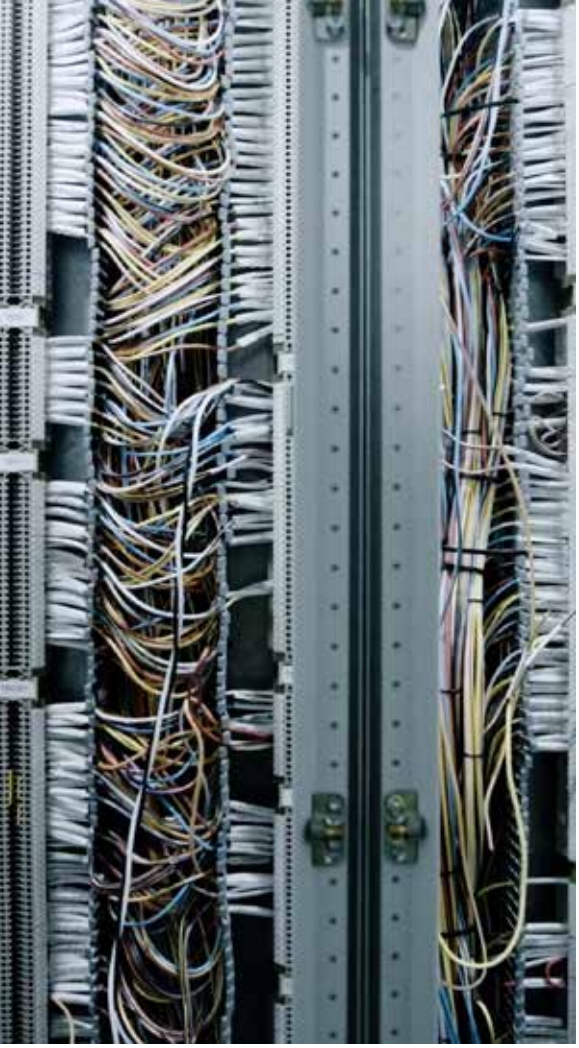


APPLICATIONS

- Servers
- Interconnect components
- Enclosures & chassis
- Drive carriers & media housing

COMMON MATERIAL SOLUTIONS

- PVC
- PC & PC Alloys
- ABS



Monitoring & Control Systems

Facility monitoring enables real-time operational intelligence. Materials must provide durability and precision while supporting electronic components and enhancing system responsiveness. They must also comply with local building codes and TIA-942/BICSI 002 standards.

Aurora Material Solutions offers a variety of polymers engineered to support the precision, durability and responsiveness that facility intelligence systems demand. They provide excellent mechanical performance and are available to cover a range of application needs.

APPLICATIONS

- Monitoring equipment
- Sensors
- Control panels & components

COMMON MATERIAL SOLUTIONS

- PC & PC Alloys
- ABS
- PBT



Power Systems

The power segment forms the electrical backbone of a data center. These components are essential for continuous operations and overall facility uptime.

When power-continuity is non-negotiable, our materials deliver with customizable flame resistance. Low smoke, zero halogen (LSZH) formulations also comply with National Electrical Code and National Fire Prevention Association 70 for enclosed spaces. Additional options meet UL 891/1558 standards.

APPLICATIONS

- PDUS equipment
- Cabling

COMMON MATERIAL SOLUTIONS

- PVC
- Polyolefines (LSZH)
- PC
- PBT
- PEI

Security Systems

Security design is a key component of the TIA-942 standard. We help you get the durability needed to protect people, property and high value equipment.

Material choices will depend on owner policies and product requirements. Our team of material experts will recommend a compound that delivers within your specific parameters, including options that enhance durability and resist environmental factors — particularly important for outdoor use.



APPLICATIONS

› Surveillance › Monitoring › Access control

COMMON MATERIAL SOLUTIONS

› PVC › PC › ABS › PBT

Fire & Life



Fire and life safety includes smoke detectors, clean agent fire suppression systems and fire alarm panels – everything that protects personnel and critical assets from fire hazards.

Aurora Material Solutions gives you access to compliant materials engineered to support flame resistance, low smoke emissions, and mitigation of thermal runaway fire events in accordance with National Fire Prevention Association 75 and 855, and UL 9540/9540A.



APPLICATIONS

› Fire detection & suppression

COMMON MATERIAL SOLUTIONS

› CPVC › PC › ABS



ENGINEERING THERMOPLASTICS (ETP)

GRADE	MATERIAL	UL94 FR	COOLING	COMPUTING	NETWORKING	STORAGE	MONITORING	POWER	SECURITY	FIRE & LIFE	DESCRIPTION
AuroraGuard 121	PC	V2@1.5	X	X	X	X	X	X	X	X	14 MFR, f2, UV, Mold Release, RTI 80°C, All colors
AuroraGuard 122	PC	5VA@3.0	X	X	X	X	X	X	X	X	14 MFR, f1, UV, Hydro Stability, RTI 120°C, All colors
AuroraGuard 124	PC	5VA@3.0	X	X	X	X	X	X	X	X	16 MFR, f1, UV, Hydro Stability, RTI 80°C, Clear & all colors
AuroraGuard 128	PC	V2@3.0		X	X	X	X	X	X	X	14 MFR, f1, UV, Hydro Stability, 514C, PFAS Free, RTI 80°C, All colors
AuroraGuard 152	PC/ABS	5VA@3.0	X	X	X	X	X			X	35 MFR, Non Brom & Non Hal, RTI 60°C, All colors
AuroraTec 393	PC/PBT	5VA@3.0		X	X			X			24 MFR, f1, UV, Hydro Stability, Mold Release, RTI 80°C, All colors
AuroraGuard 170	PEI	5VA@3.0			X			X			12 MFR, Injection Molding, translucent, RTI 105°C, All colors
AuroraGuard 084-7	PBT	5VA@3.0		X	X		X	X	X		25 MFR, 15% GF, Chemical Resistance, RTI 75°C, BK color
AuroraGuard 2506UR	PC/ASA	HB@1.5		X							22 MFR, Impact Modified, UV, Chemical, RTI 50°C, All colors
AuroraGuard F0PET15GF	PET	5VA@2.0	X		X	X					14 MFR, 15% GF, RTI 140°C, All colors
AuroraGuard ENV08	PBT	HB@1.5	X		X		X	X	X		50 MFR, Chemical Resistance, High Heat, IM, RTI 60°C, BK color
AuroraGuard ENV00	FR ABS	HB@2.0	X	X	X	X	X		X	X	20 MFR, Adhesion, Platable, RTI 60°C, BK rating

RPVC

GRADE	MATERIAL	UL94 FR	COOLING	COMPUTING	NETWORKING	INFRASTRUCTURE	STORAGE	MONITORING	POWER	SECURITY	FIRE & LIFE	DESCRIPTION
AuroraTec AP4006AA	PVC	5VA@3.0	X			X				X		14 MFR, f2, UV, Mold Release, RTI 80°C, All colors
AuroraTec AP4056A	PVC	5VA@3.0		X	X		X	X	X	X		14 MFR, f2, UV, Mold Release, RTI 95°C*, All colors
AuroraTec AP4020B	PVC	5VA@3.0	X			X				X		14 MFR, f1, UV, Hydro Stability, RTI 120°C, All colors
AuroraTec BF 8405 DWV	PVC	5VB@1.2	X			X				X		16 MFR, f1, UV, Hydro Stability, RTI 80°C, Clear & all colors
AuroraTec AP1271H	PVC	5VA@3.0				X				X		14 MFR, f1, UV, Hydro Stability, 514C, PFAS Free, RTI 80°C, All colors
AuroraTec AP2456E	PVC	5VA@3.0	X			X						35 MFR, Non Brom & Non Hal, RTI 60°C, All colors
AuroraGuard AP2501	PVC	HB@1.0				X						24 MFR, f1, UV, Hydro Stability, Mold Release, RTI 80°C, All colors
AuroraTec AP2257E	PVC	5VA@3.0										12 MFR, Injection Molding, translucent, RTI 105°C, All colors
AuroraTec AP5120A	PVC	5VA@3.0				X				X		25 MFR, 15% GF, Chemical Resistance, RTI 75°C, BK color
AP5325A	CPVC	Pending	X								X	22 MFR, Impact Modified, UV, Chemical, RTI 50°C, All colors
AP2480GNT1000	CPVC	Pending	X								X	14 MFR, 15% GF, RTI 140°C, All colors







AURORA W&C PRODUCTS BY DATA CENTER SEGMENT

AURORA FAMILY	KEY DATA CENTER SEGMENTS	APPLICATION & CABLE TYPES	KEY STANDARDS	CRITICAL PROPERTIES
AuroraFlex™ FS Series **PVC** **Products:** › FS 1000H › FS 1200H	Networking components Computing equipment Storage	Network & Data Cables — CAT 6/6A, CMP/CMR, Fiber, FT4/FT6	UL 444, UL 758, CSA 214, UL 910, UL 1666, FT4/FT6	Low smoke, PoE heat performance, tight/small bend radius, cold bend install
AuroraGuard™ GTP Series **TPO/TPE (LSZH)** **Products:** › GTPE 211010 › GTPE 201110 › GTPE 22726500 › GTPO 8102 › GTPO 8290	Networking components Security systems Monitoring & control	Network/Data + Safety/Security/ Building Mgmt — CAT 6/6A, CMP/CMR, UL 1277 & CSA TC-ER, FT4/FT6	UL 444, UL 13, UL 1277, CSA 214, CSA 230/239, UL 910, UL 1666, UL 1685, FT4/FT6	Low smoke (LSZH), PoE heat, outdoor UV & cold impact, 75–105°C
AuroraGuard™ CPE Series **CPE** **Products:** › CPE 220511FR › CPE 13021 › CPE 230571	Cooling infrastructure Physical infrastructure Monitoring & control	Tray & Control Cable — UL 1277, CSA Type TC / TC-ER, VFD, Instrumentation, FT4	UL 1277, UL 1424, UL 1569, UL 44/83, CSA 230/239, UL 1685, IEEE 1202, FT4	90–105°C, oil/coolant resistant, abrasion/crush, cold bend for rooftop/outdoor
AuroraFlex™ GA Series **PVC** **Products:** › GA 1038-01 › GA 25004 › GA 509	Power systems Computing equipment Physical infrastructure	Power Distribution & Equipment Wiring — UL 62, UL 83, UL 758, NM-B / NMD90, FT1/FT4	UL 44, UL 83, UL 758, UL 1072, UL 1277, TL 1685, IEEE 1202, VW-1, FT1/FT4	High ampacity, high ambient derating, high heat endurance, -40°C outdoor capable

State-of-the-Art Facilities Advance Quality & Consistency

Aurora Material Solutions has polymer compounding facilities in the U.S., located in Streetsboro, Ohio; Welcome, North Carolina; Lunenburg, Massachusetts; Pasadena, Texas; Evansville, Indiana; Louisville, Kentucky; and Marieville, Quebec, Canada.

Designed to remove all non-value-added steps in the manufacturing operations, our facilities optimize best practices and have the most current technologies. As a result, we have set the benchmark on product quality and lot-to-lot consistency in the industry.

- Industry leading tolerances on manufacturing processes
- Dedicated silos, tote bins and all inventory is controlled through automation
- Rheology, color and powder/pellet properties are measured several times during production
- In-house R&D laboratory including a complete analytical equipment portfolio
- Technical team is experienced, offering cutting edge technology, and providing field proven and laboratory verified compounds
- Newly built on-site UL certification testing laboratory


Streetsboro, Ohio


Welcome, North Carolina


Marieville, Québec


Lunenburg, Massachusetts


Pasadena, Texas


Evansville, Indiana


Evansville, Indiana


Louisville, Kentucky

To locate your local Aurora Material Solutions representative go to

www.auroramaterialsolutions.com/locate-sales-representative

Our plants' quality management systems are certified to ISO 9001:2015.

We continuously strive to lead the industry in quality products you can trust. For more information on products and services from Aurora Material Solutions, call us today at **330-422-0700** or visit us at **www.auroramaterialsolutions.com**.

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Evansville, Indiana Production Facility
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