



MERCEDES-BENZ[®] BURLINGTON DEALERSHIP

Radiant Heating and Snow and Ice Melting
Project Profile

Mercedes-Benz Dealership Provides Modern Features and Customer Comfort With REHAU Radiant Heating and Snow and Ice Melting Systems

When commissioning the construction of a new Mercedes-Benz® dealership in Burlington, Ontario, owner Ken Szekely was keen on creating a facility that exemplified modern architectural style with an emphasis on customer comfort. Referencing the Canadian Green Building Council's LEED™ (Leadership in Energy and Environmental Design) guidelines, the design team incorporated 16 major energy-saving innovations.

To ensure exceptional comfort while achieving highly efficient HVAC operation in this 65,000 ft² (6,040 m²) building, which features a dramatic floor-to-ceiling glass window wall design, a REHAU radiant heating system was installed. This included two levels of new and pre-owned vehicle showrooms, as well as the dealership's customer service, reception and lounge areas.

Radiant heating not only promotes energy efficient HVAC operation and ultimate occupant comfort, but, as a ventless system, will also minimize the dust on the vehicles and building windows.

The radiant heating system included 54,000 ft (16,500 m) of 1/2 in. RAUPEX O₂ Barrier crosslinked polyethylene (PEXa) pipe and 16 PRO-BALANCE manifolds. Additionally, 1 1/4 and 1 1/2 in. large-diameter RAUPEX pipe was used to provide supply and return mains to the manifolds. In the lower showroom area, the system used a RAILFIX fixing rail, which enabled the RAUPEX to be installed on the precast basement floor. RAUTACK foam insulation staples were also used to affix the RAUPEX to the floors in all slab-on-grade areas of the project.

Providing further comfort and safety for customers, the dealership also opted for the installation of a REHAU snow and ice melting system in the outdoor areas surrounding the building. The system, including a total of 16,000 ft (4,880 m) of 5/8 in. RAUPEX pipe and 7 PRO-BALANCE manifolds, was incorporated into all customer entrances and walkways, as well as the outdoor ramps to the dealership's 17 service bays.

The building received a first place Gold Maple Leaf Award in the "retail store design" category of the International Council of Shopping Centers (ICSC) 2011 Canadian Shopping Centre Global Awards program. At the corporate level, the dealership has been awarded the prestigious designation of Star Dealer for 2012.



Project: Mercedes-Benz Dealership, Burlington, Ontario

Type of Construction: Retail, completed in 2010

Scope of Project: 65,000 ft² (6,040 m²) building; 70,000 ft (21,300 m) of RAUPEX pipe

Owner: Ken Szekely

Technical Associate: Klimatrol Environmental Systems, Ltd.

REHAU Systems Used: Radiant heating and snow and ice melting system (RAUPEX® pipe, compression-sleeve fitting system, PRO-BALANCE® manifolds, RAILFIX™ fixing rail, RAUTACK™ foam insulation staples).

"Receiving this award in our first year of operation is an exceptional achievement, and also a concrete example of how thoughtful and innovative retail design can translate into bottom-line business value," Szekely said. "We've additionally been told that Mercedes-Benz is considering including some of our unique building concepts as part of an updated design standard for all its Canadian dealerships. That's pretty impressive, especially as we definitely pushed the limits to achieve our vision."