

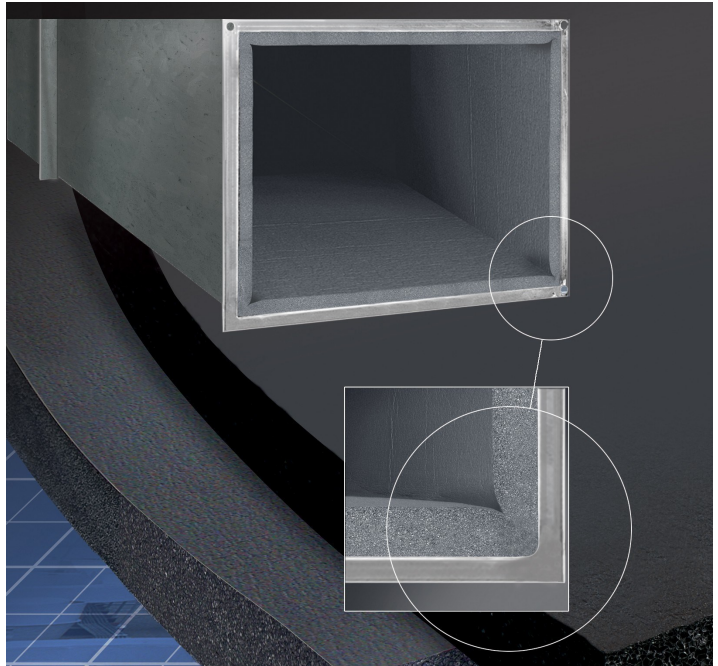
AP Coilflex Meets Acoustic Demands of High School

What's *inside* the ductwork is critically important to the indoor air quality (IAQ) and learning environment inside a school. At **Rocky Mount High School**, in Rocky Mount North Carolina, AP Coilflex® ductliner met the school's demand for fiber-free ductwork while also providing noise attenuation.

Optima Engineering of Charlotte, NC chose a centralized geothermal system as part of the school's energy efficiency strategy to achieve LEED certification. Although this centralized system would be more maintenance friendly, it also incorporated larger heat pumps and air handlers which created potential noise problems inside the classrooms. Excessive mechanical vibration and noise would surely result without the sound attenuation of ductliner. However, fiberglass was *not* an option. Nash County School Board made it clear they wanted a fiber-free, moisture-resistant air delivery system. This led Optima to specify AP Coilflex elastomeric foam ductliner.

Low frequency noise (125 to 500 Hz) is the most difficult type of noise to attenuate in a mechanical system. This noise is typically associated with the *throb* of turbulent airflow and fan instability, and it was anticipated to be a problem for Rocky Mount. Fortunately, 125 to 500 Hz happens to be the "sweet spot" of acoustic performance for AP Coilflex. After much research and analysis, Joseph Bridger of Stewart Acoustical Consultants suggested AP Coilflex as a suitable solution.

"The reason I chose this liner was because it performs so much better at 500Hz than other cellular liners," said Bridger. "Other products require much more length to achieve the same sound attenuation."



AP Coilflex is not only fiber-free, it is also formaldehyde-free, has low VOC's, and is made with Microban® antimicrobial protection. It was the perfect solution for this school and its high IAQ standards.

AP Coilflex is manufactured in the USA by Armacell, the makers of Armaflex® pipe and duct insulation.

For more information about duct insulation or this application story, please contact:

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