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## AEROGEL CHARACTERIZATION FOR RICH APPLICATIONS

The interest into silica aerogel arises from the need to partially cover the refractive index gap between gases at high pressure and unmanageable liquified radiators, especially when used as radiator in RICH (Ring Imaging Cherenkov) detectors.

In this poster, the optical parameters of recently produced hydrophobic silica aerogel tiles with various refractive indices in the range 1.005 – 1.05 will be presented. Each tile has been characterized at different positions in terms of transmittance, scattering, absorption and transmission lengths. Optical properties of two aerogel tiles produced in 2000 have also been investigated.

The results show how low refractive index aerogel exhibits higher transmittance and transmission length than the other tiles. The contribution of the absorption is also investigated and it is found to be negligible if compared to the Rayleigh scattering process.

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