

SN-Class Performance and CO₂ Reduction in Corrugated Pipes

A joint effort by Meltex and GCR to meet structural targets and improve processability in HDPE corrugated pipes

Challenge

Meltex, a leading Finnish manufacturer of infrastructure and drainage systems, wanted to improve the mechanical performance of its HDPE corrugated sewage pipes.

The **challenge** was to find material that would cost-effectively **improve the properties of the pipes** while also **improving the processability in production**.

Need was clear: a material that could enhance the structural performance of pipes **to meet the requirements of the classification standards** without compromising process efficiency.



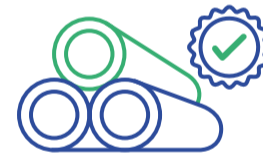
Superior ring stiffness
Proven stiffness in SN8 & SN16 pipes



Lower CO₂ footprint
12% reduction
(ISO 14067:2018)



Higher productivity
Higher output,
greater efficiency



Consistent pipe quality
Smooth surface finish,
no visual defects

The results

- ▀ **Ring stiffness above 16N**, achieving 17–18N in SN16-class pipes
- ▀ **No humidity-related issues**, even in high-moisture environments
- ▀ **Higher thermal conductivity**, faster heating/cooling, improved corrugator efficiency.
- ▀ **Excellent surface quality**, delivering a smooth finish without visual defects
- ▀ **12%* CO₂ reduction**, certified under ISO 14067:2018
- ▀ **Improved processability**, faster extrusion stabilization, quicker startup and changeovers.

Solution

GCR and Meltex developed and validated a tailored Granic[®], mineral masterbatch solution for corrugated pipes that delivers SN8 and SN16 stiffness with reduced polymer use **without compromising impact resistance or processability**.

Meltex and GCR prove that corrugated pipes can achieve certified CO₂ reduction, superior SN-class performance, and reliable processing

*Value calculated under ISO 14067:2018, Evaluation Period: 2024. All data presented is for informational purposes only and does not constitute contractual specifications. The processor is responsible for processing conditions and final product use, including compliance with applicable regulations and third-party intellectual property rights.