

Inquiry No 130006292

Dear Receiver,

we would like to invite you to submit your offer for the space charge and conductivity measurements of XLPE, silicon rubber and sandwich od XLPE+silicon rubber. The offer should include the following measurements:

1. Space charge measurement of 3 polymeric materials (XLPE, silicon and XLPE + silicon) conducted for 5 h poling time + 3 h depolarization at 2 different levels of electromagnetic field (for example 10 kV/mm and 20 kV/mm) at room temperature and 2 other additional temperatures (50 °C and 70 °C).
2. Electrical conductivity measurements on 3 polymeric materials (XLPE, silicon and XLPE + silicon) conducted until the charging current reaches the steady state (conduction current) at 2 levels of electric field (for example 10 kV/mm and 20 kV/mm) at room temperature and 2 other additional temperatures (50 °C and 70 °C).

There will be 2 sets of samples (XLPE, silicon rubber and sandwich od XLPE+silicon rubber) sent separately. The first one will be ready in June and the second one in the 3<sup>rd</sup> quarter of 2025.

All data collected during the measurements should be delivered in a form of a report (in pdf file and in printed version) with all recorder photos, plots and data stored in a form of a table. As an introduction to the report description of all conducted tests should be provided (apparatus, conditions, parameters used).

Moreover, marked samples after the measurements should be send back to TFK.

The tenderer should suggest sizes of the samples for the measurements and define the method of taking the sample.