



Study Committee No: D1

## WORKING GROUP FORM (TOR)

WG No: <b>D1.27</b>	Name of Convener: <b>J. Seifert (DE)</b> Name of Secretary: <b>H. Hillborg (SE)</b>
Title of the Group: <b>Material Properties for New and Nonceramic Insulation</b>	
Scope, deliverables and proposed time schedule of the Group:  Background: There is an increasing use of nonceramic materials for HVDC as well as potential use for materials with new type of fillers or surface structures. There is a need to define physical properties of such materials.  Scope: Define parameters important to identify polymeric materials (1.), define physical parameters important for polymeric materials applied in HVDC insulation (2.) and develop relevant test methods for new materials (2.&3.) when necessary.  Deliverables  1. Fingerprinting of materials The purpose of the fingerprinting method is to verify that the material used is the same as the material used during design tests.  2. Material properties and relevant test methods for DC insulation e.g. T&E Test under DC, influence of conductivity and Space charge (e.g. on voltage distribution and polarity reversal)  3. Effect of emerging technologies (e.g. structured surfaces, nanofillers, etc.) on insulating material for use under outdoor as well as under severe indoor conditions. (To be started when WG D1.24 "Potential of Polymer Nanocomposites as Electrical Insulation" has developed sufficient knowledge and suitable materials are available in reasonable quantities.)  Schedule: Final report <span style="float: right;"><b>2012</b></span>	

Papers issued:

Technical Brochure and publication in Electra in **2012**

Approval by the TC Chairman:

Date: