

# Selection guide for polymeric materials for outdoor use under HV stress

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## National foreword

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## Selection guide for polymeric materials for outdoor use under HV stress



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## INTRODUCTION

There is an urgent need within utilities and industry for material standards, which define the physical properties of the polymers applied for outdoor insulation. This requirement was identified during discussions in IEC TC 36 and IEC TC 15 which is today part of IEC TC 112. As a consequence, in the year 2001, CIGRE formed the WG D1.14 with the specific task of defining the physical parameters important for the polymeric materials applied in outdoor insulation and to develop the relevant test methods where necessary. As a first step, a state-of-the-art report was issued by CIGRE in the brochure 255. Twelve properties have been identified; standardised test methods and minimum requirements were available for eight of them. For the remaining four properties, test methods and minimum requirements still need to be defined. This will be the future task of WG D1. This IEC Technical Report presents – as conclusion of the CIGRE-report – the important material properties for polymeric materials used in outdoor insulation and where they are applicable, and lists the standardised test methods including the minimum requirements. If no standardised tests are available, then test methods reported in literature are summarised.