

CONTENT

ABSTRACT.....	2
ABSTRAKT	3
THEORETICAL BACKGROUND.....	5
1. INTRODUCTION.....	5
2. CROSSLINKING OF POLYETHYLENE.....	6
2.1 Polyethylene crosslinking methods.....	6
2.1.1 Silane crosslinking method.....	7
2.2 Properties of crosslinked polyethylene.....	11
3. THE AIMS OF RESEARCH WORK.....	13
4. EXPERIMENTAL PART	14
4.1 Materials.....	14
4.2 Preparation of samples.....	15
4.3 Characterization methods	16
4.3.1 Fourier transform infrared spectroscopy.....	16
4.3.2 Differential scanning calorimetry.....	16
4.3.3 Mechanical tensile testing.....	17
5. RESULTS AND DISCUSSION	18
5.1 Chemical reactions of EVTMS copolymers during crosslinking and thermal ageing.....	18
5.1.1 VISICO/AMBICAT copolymer.....	19
5.1.2 DEX1 and DEX2 copolymers.....	22
5.2 Morphology of EVTMS copolymers.....	23
5.2.1 Thermal fractionation of Visico copolymer.....	28
5.3 Mechanical properties of EVTMS copolymers	30
5.3.1 Mechanical tensile testing.....	30
6. CONCLUSION.....	33
7. CONTRIBUTION TO THE SCIENCE AND PRACTICE	35
REFERENCES	36
LIST OF FIGURES.....	39
LIST OF TABLES.....	39
LIST OF SYMBOLS AND ACRONYMS.....	40
CURRICULUM VITAE	41
LIST OF PUBLICATIONS.....	42