

INVESTIGATION OF BLOOMING ON NON BLACK NR - BASED STRAPS OF RUBBER SLIPPERS

By

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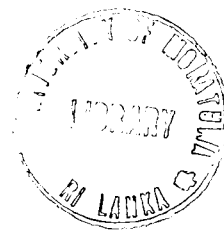
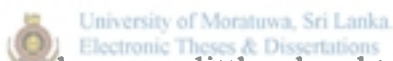
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Abstract

Blooming is the appearance of powdery deposits on the surface of a rubber product. It occurs, whenever a rubber product contains an incompatible ingredient in excess of soluble quantity. Blooming is considered to be a major defect in rubber products. It spoils the smooth shiny rubber surface and impairs the aesthetic appeal of the product.

Blooming can also aid passage of air to the rubber mass and thus can cause oxidative degradation of rubber molecules.

Since this blooming phenomenon (defect) occurs very often in non – black Natural Rubber (NR) – based straps, the important tension – members of rubber slippers, an investigation has been made in this project with a view to rectify the defect and improve the breaking strength of straps.

The results of investigation reveal that the blooming of the strap is caused by the insoluble phenolic antioxidant which is a component of the protective system that has been added in excess quantity, into the rubber.

Further it has also been found that about a 15% reduction in the amount of phenolic antioxidant added and inclusion of 0.15 pphr of zinc - di-ethyl dithiocarbamate completely prevent the bloom, and impart desirable aging resistance to the rubber.

Content

	Page
Chapter 1	
Introduction	1
1.1. Literature survey	2
1.1.1. Ideal situations for prevention of blooms	2
1.1.2. Types of blooms.....	3
1.1.3. True blooms	3
1.1.4. Modified blooms	4
1.1.5. Pseudo blooms	5
1.1.6. Surface contamination	6
1.1.7. Staining or discolorations.....	6
1.1.8. Hazing	7
1.1.9. Frosting	7
1.1.10. Advantages and disadvantages of bloom.....	8
Advantages of wax blooming	9
Instances of blooms considered as disadvantage.....	9
Disadvantages of sulphur blooming	9
1.1.11 Toxicological consequences (Health hazards).....	11
1.2 Aim of the project	11
Chapter 2	
Blooming on rubber surface	12
2.1 Techniques used for analysis of bloom	12
2.1.1 Analysis of bloom	12
2.1.2 Removal of bloom for analysis.....	12
2.1.3 Pre- analytical check – list	13
2.1.4 Analytical methods	16
2.1.4.1. Spot tests	16
2.1.4.1.1. Carbon disulphide test.....	16
2.1.4.1.2. Piperidene test.....	17
2.1.4.2 Multiple Internal Reflectance Infrared Spectroscopy (MIR)..	17
2.1.4.3. Scanning Electron Microscopy (SEM)	19
2.1.4.4. FTIR (Fourier Transform Infrared Spectroscopy)	23
2.1.4.5. Thin Layer Chromatography (TLC)	24
2.2 Experimental	27



2.2.1	Investigating of blooming	27
2.2.2	Analysis of bloom by means of Fourier Transforms Infrared spectrometer (FTIR) Preparation of KBr tablet	27
2.2.2.1	Results.....	28
	Fourier Transform Infrared Spectroscopy (FTIR) Evidence	28
2.2.	Discussion of results of investigation of blooming Analysis of FTIR evidence.....	33

Chapter - 3

Designing rubber mixes	35
3.1 Rubber strap – mix formulation	35
3.1.1 Choice of rubber	36
3.1.2 Choice of reinforcing polymer	36
3.1.3 Other ingredients	37
a) Colour	37
b) China clay.....	37
c) Activators.....	37
(I) Zinc oxide (ZnO)	37
(II) Stearic acid.....	38
d) Accelerators.....	38
(I) Mercaptobenzo thiazole sulphenamide (MBTS)	38
(II) DI phenyl guanadine (DPG)	38
(III) Zinc diethyl dithiocarbamate (ZDC)	39
e) Antioxidant	39
f) Wax	39
g) Process oils	40
h) Sulphur	40
3.2 Experimental	41
a) Experimental work.....	41
b) Processability tests	43
c) Physical testing of vulcanisates	43
d) Assessment of blooming	49

3.3	Results.....	50
	a) Rheographs	50
	b) Physical test results.....	52
	c) Visual observation after 14 days exposure.....	60
3.4	Discussion of the results	61
	a) Processability test results	61
	b) Physical properties test results.....	61
	c) Assessment of blooming.....	61
3.4.1	Photos of blooms.....	63
 Chapter - 4		
	General discussion and conclusions	64
	4-1 Investigation of blooming	64
	4-2 Mix formulation and properties	64
	4-3 Possible further work.....	65
	4-4 Conclusion.....	66
	References.....	67-68



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List of Tables

		Page
Table 1	Factors causing blooms	2
Table 2	Rubber strap – mix formulation	35
Table 3	Formulations with variable quantities of antioxidants	42
Table 4	Cure characteristics (Monsanto rheometer)	51
Table 5	Breaking load of stem button - Toe	52
Table 6	Breaking load of stem button –Inside	53
Table 7	Breaking load of stem button- Outside	54
Table 8	Tensile strength of test compounds	55
Table 9	Modulus of test compounds	56
Table 10	Elongation at break of test compounds	57
Table 11	Hardness of test compounds	58
Table 12	Ageing 7 days at 70°C test results	59



List of Figures

	Page
Figure 1 Diagrammatic representation of MIR	18
Figure 2 Schematic Diagram of a Scanning Electron Microscope	20
Figure 3 Bloom of sulphur crystals on partly cured rubber products	21
Figure 4 Bloom of sulphur crystals with large accelerator crystal	21
Figure 5 Bloom' – actually fungus growth	22
Figure 6 'Bloom'–actually loss of surface gloss due to stress-relaxing oxidation	22
Figure 7 Plate : Thin Layer Chromatography	25
Figure 8 Apparatus for Daylight Exposure	26
Figure 9 FTIR Spectrum of brown strap sample	28
Figure 10 FTIR Spectrum of blue strap sample	29
Figure 11 FTIR Spectrum of red strap sample	30
Figure 12 FTIR spectrum of phenolic antioxidant presently used	31
Figure 13 Comparison of bloomed red sample with control	32
Figure 14 Comparison of bloomed blue sample with control	32
Figure 15 Probable antioxidant structure	33
Figure 16 Tensometer with thong strap holding device	44
Figure 17 Dimension of dumb-bell knife for tensile test	45
Figure 18 Rheograph of sample compounds superimposed	50
Figure 19 Average breaking load of stem button - Toe	52
Figure 20 Average breaking load of stem button - Inside	53
Figure 21 Average breaking load of stem button - Outside	54
Figure 22 Average tensile strength of test compounds	55
Figure 23 Average modulus of test compounds	56
Figure 24 Average elongation of test compounds	57
Figure 25 Average hardness of test compounds	58
Figure 26 Average ageing of test compounds	59
Figure 27 Bloomed strap sample- 01	63
Figure 28 Bloomed strap sample- 02	63