
CMP

K.L.Pinder

(// : // :)

CMP

(DIP)

CMP

CMP

(DTPA)

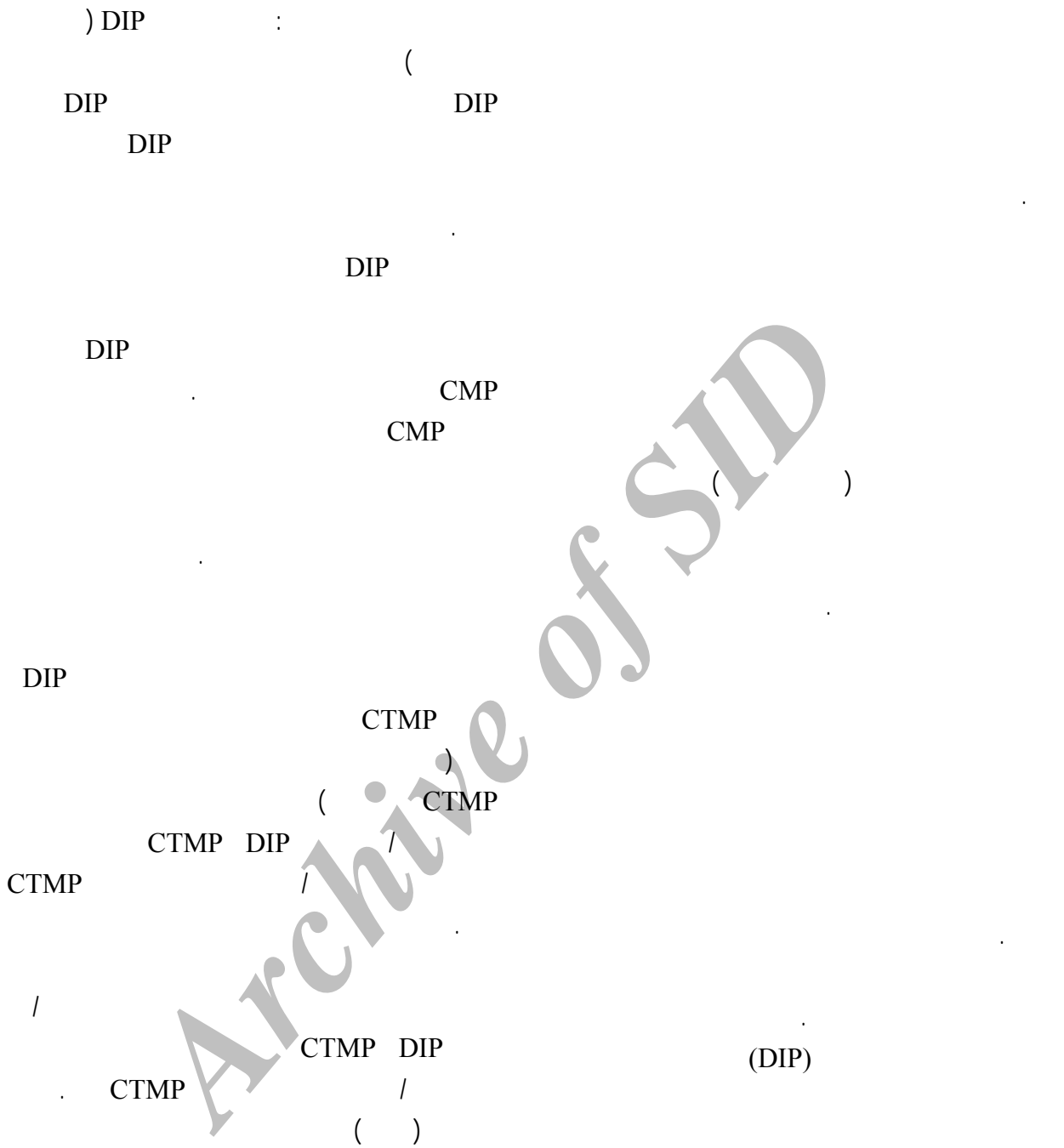
(EDTA)

CMP

CMP

- - CMP - - - - -

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Heimbürger
Tremblay
Supercalendering
Law

Waste paper recycling
Deinking
Contaminants
Deinked pulp
Virgin

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DIP

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CMP

(DIP

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DIP

DIP

CMP DIP

(%)			
(M ₃)	(M ₂)	(M ₁)	
			* DIP
			CMP

DTPA

*

() EDTA ()

CMP

DIP

Tappi

Tappi

Rao
Mahagaonkar
Banham
Fletcher
Deng

DIP

DIP

DIP

DIP

Tappi

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Archive of SID

CMP DIP

(%)						
DIP			DIP			
(M₃)	(M₂)	(M₁)	(M₃)	(M₂)	(M₁)	
						*DIP
						CMP

) EDTA () DTPA *
(

(KPa)	(mN)	(KN/m)	(%)	/
/	/	/	/	M ₁ I ₄
/	/	/	/	M ₂ I ₄
/	/	/	/	M ₃ I ₄
/	/	/	/	M ₁ I ₆
/	/	/	/	M ₂ I ₆
/	/	/	/	M ₃ I ₆
/	/	/	/	

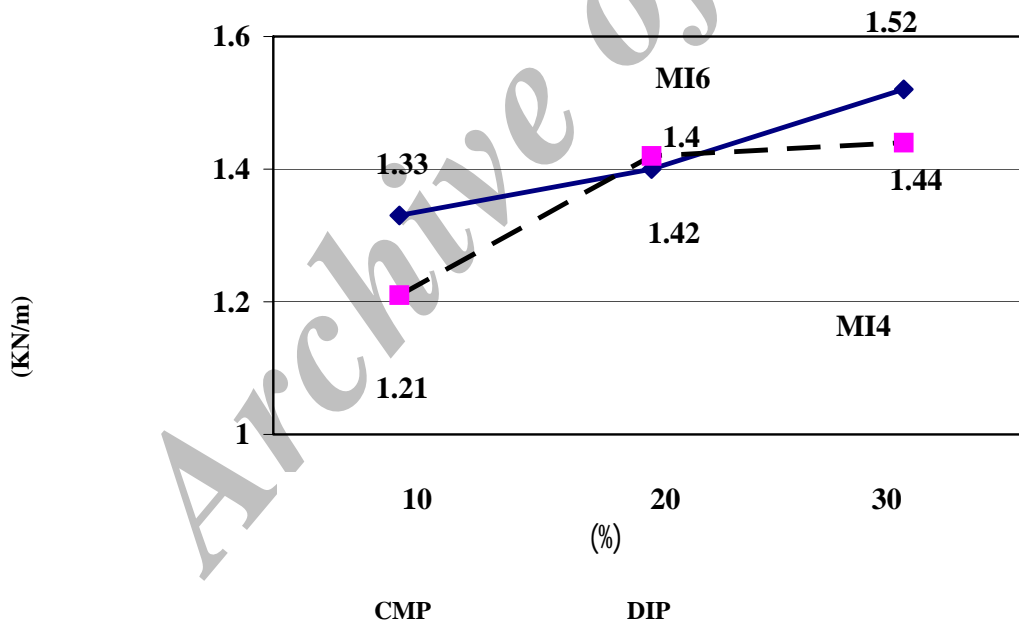
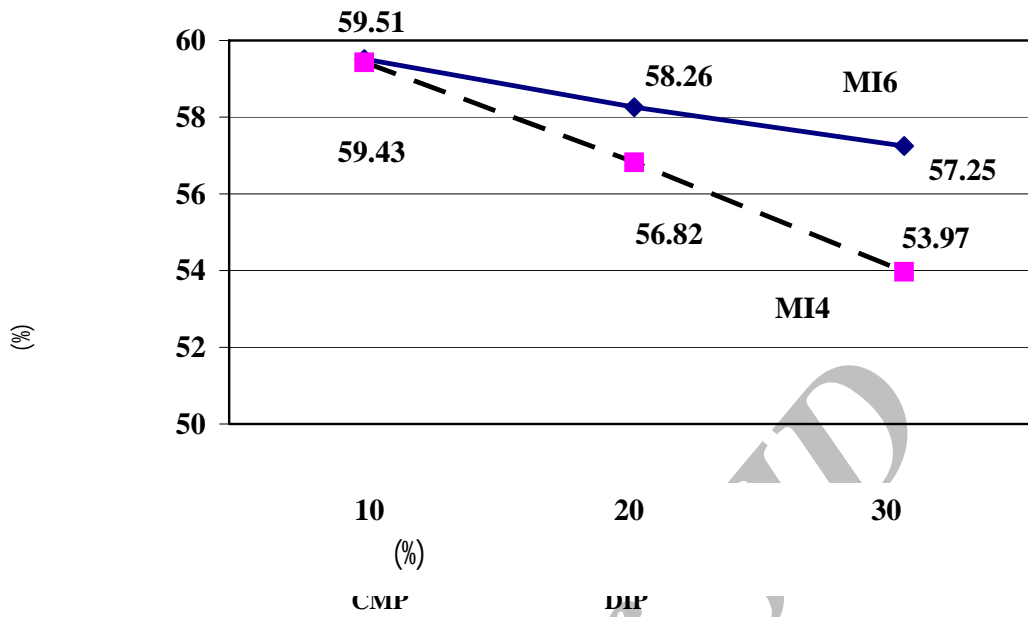
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I ()
6 4 ()

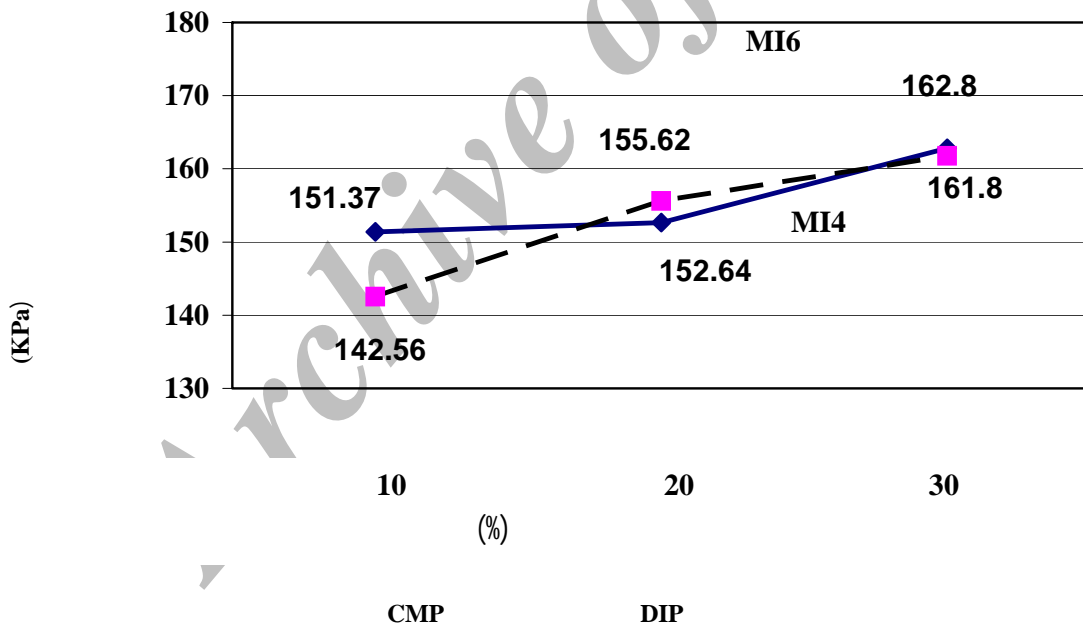
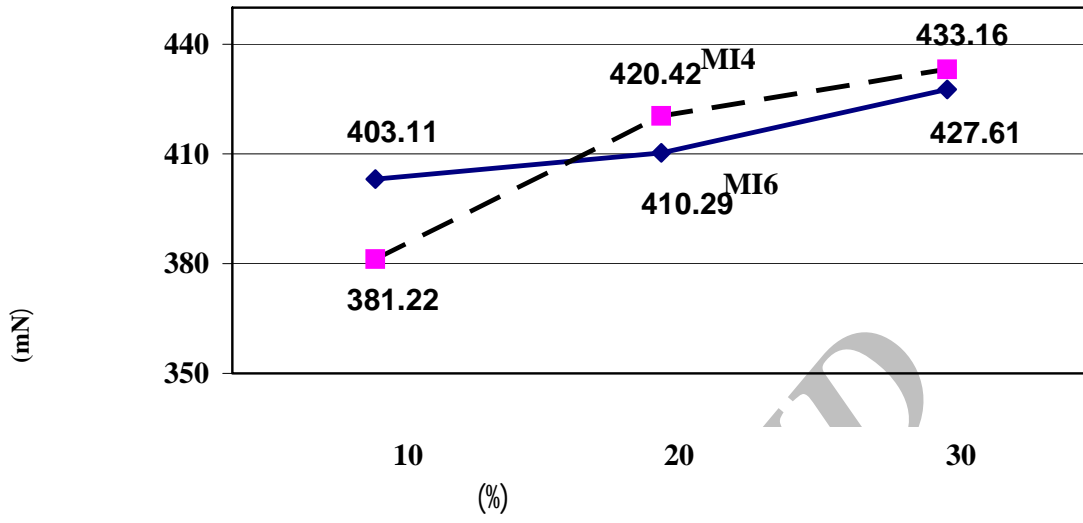
EDTA DTPA

DIP

DIP

CMP





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DIP

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 / Y +/ Y + / Y + / Y =

M ₃ I ₆	M ₂ I ₆	M ₁ I ₆	M ₃ I ₄	M ₂ I ₄	M ₁ I ₄	
/	/	/	/	/	/	

(KPa)	(mN)	(KN/m)	(%)	
/	/	/	/	M ₁ II ₄
/	/	/	/	M ₂ II ₄
/	/	/	/	M ₃ II ₄
/	/	/	/	M ₁ II ₆
/	/	/	/	M ₂ II ₆
/	/	/	/	M ₃ II ₆
/	/	/	/	

() M₃ M₂ M₁ ()

II ()

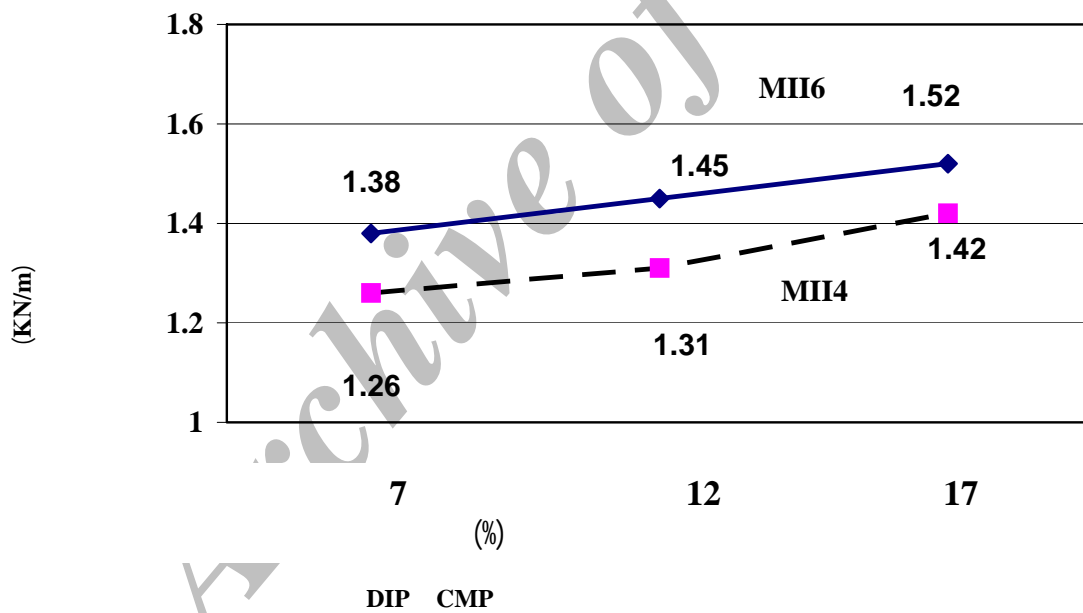
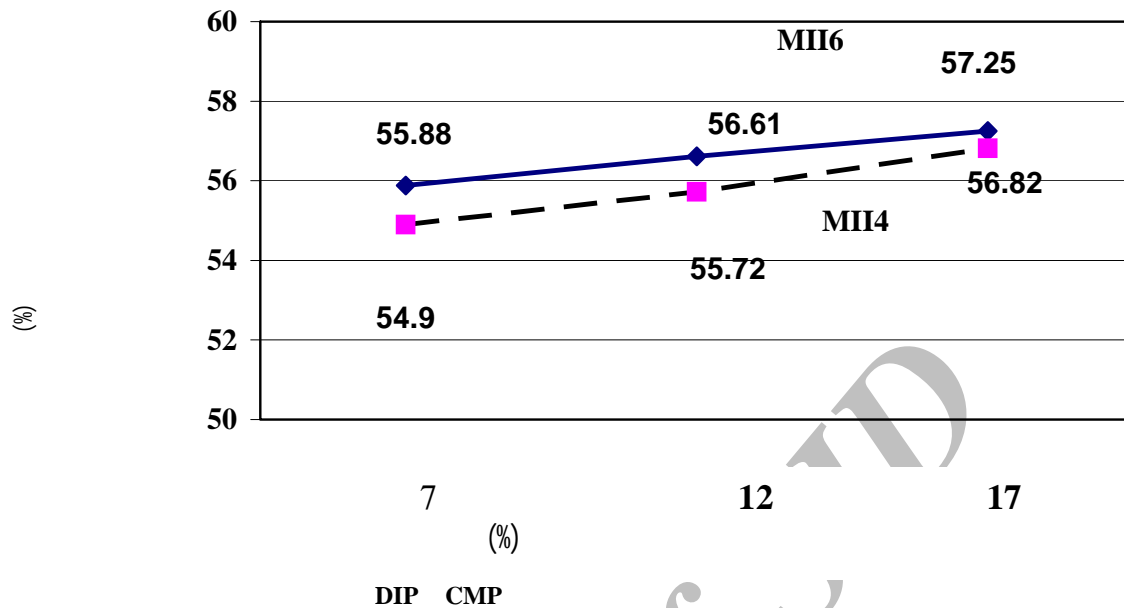
EDTA DTPA

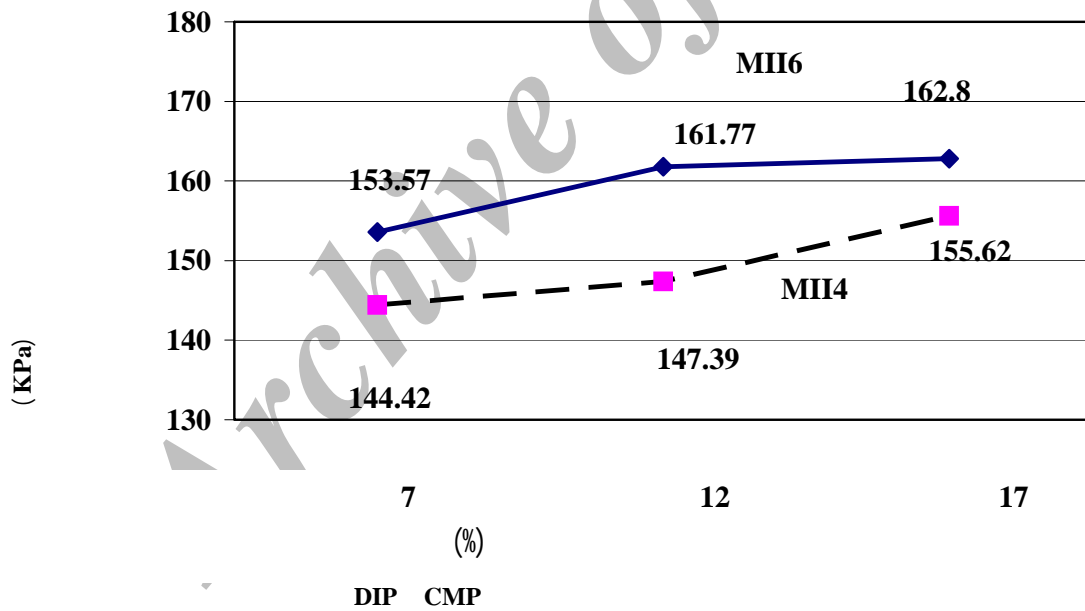
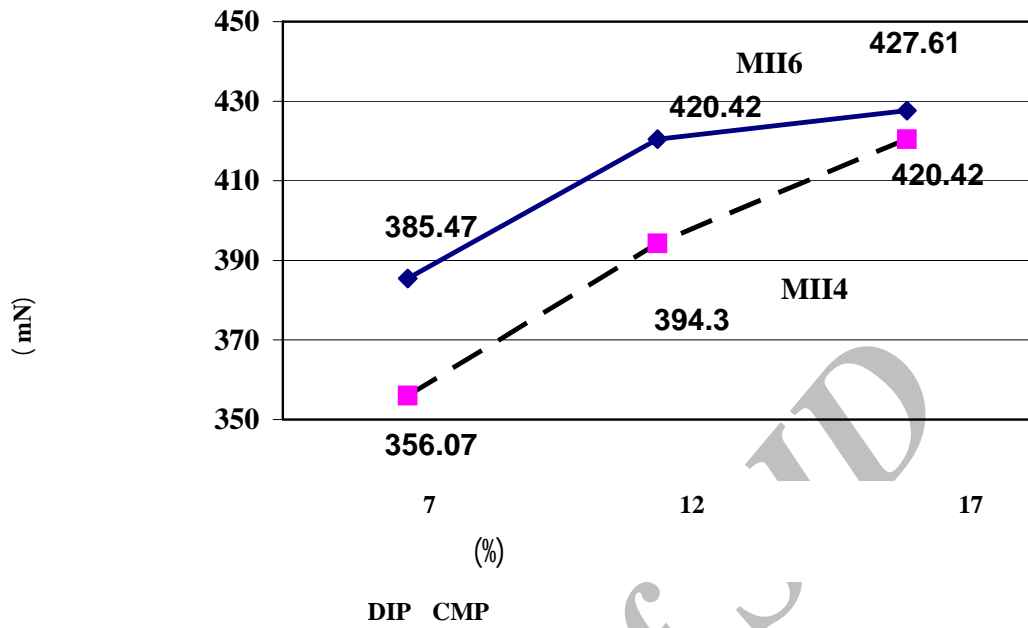
DIP

6 4 ()

DIP

CMP





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DIP

M ₃ I ₆	M ₂ I ₆	M ₁ I ₆	M ₃ I ₄	M ₂ I ₄	M ₁ I ₄	
/	/	/	/	/	/	

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CMP %

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DIP

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K.L.Pinder

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ONP/OMG Deinking Part 2: Effects of DIP Use on the Properties of Local CMP Pulp

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Abstract

Newsprint is currently made in Iran using CMP pulp produced from local hardwoods mixed with imported long fibers. Due to the limitation of domestic cellulosic materials, the possibility of using local deinked pulp (DIP) in place of part of local CMP, and therefore decreasing the percentage of imported long fiber use in the mix of pulps has been studied in this research. The bleached deinked pulps of local ONP/OMG mixes were separately mixed at 10, 20 and 30 Percent ratios with local hardwoods CMP, including imported long fiber pulp. Measuring the optical and mechanical properties of the hand sheets made out of these mixes, the best mix was determined by calculating the related normalization equation and the score of each mix. The results have shown that in the case of DIP type 1 (produced by using DTPA as chelating agent), the best score, i.e. The best properties belong to the mix containing 20 percent of the DIP. Using DIP type 2 (produced by using EDTA as chelating agent), the highest score belongs to the mix containing 30 percent of DIP. Moreover, using 20 percent of DIP type 1 in the mix, the ratio of long fiber pulp use must be kept at 17 percent the decrease of which would not be suitable. But, using 30 percent of DIP type 2 in the mix, the best ratio of long fiber pulp use is at 17 percent, which can be lowered to 12 percent, as well.

Keywords: ONP, OMG, Deinking, Deinked Pulp (DIP), CMP Pulp, Long Fiber Pulp, Optical Properties, Mechanical Properties, Normalization Equation.

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