

TABLE IV. PERMEABILITY OF KAOLIN-PWT MIXTURES AND COHESIVE CLAY – FINE TIRE CHIPS MIXTURES

Kaolin - PWT Mixtures (Current Study)				
Rubber Percentage	0%	20%	40%	60%
Permeability (mm/s)	9.11E-06	3.66E-05	4.71E-05	5.17E-05
Cohesive Clay – Fine Tire Chips Mixtures [6]				
Rubber Percentage	0%	20%	40%	50%
Permeability (mm/s)	9E-08	2.8E-07	4.7E-07	6.5E-07

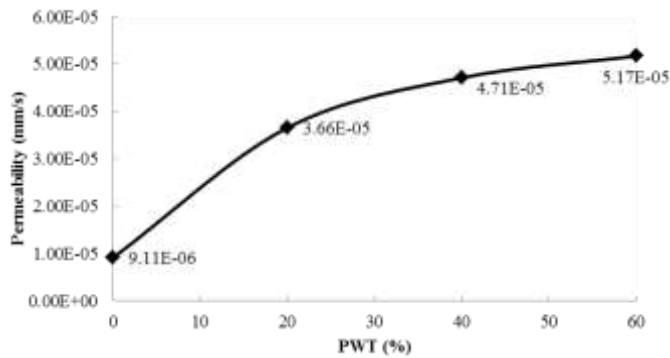


Fig. 5. Permeability of Kaolin-PWT mixture

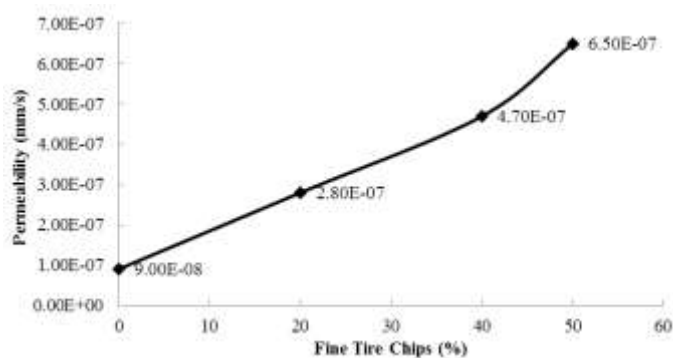


Fig. 6. Permeability of Cohesive Clay – Fine Tire Chips Mixtures [6]

IV. CONCLUSIONS

Effect of Powdery Waste Tire (PWT) on permeability of Kaolin was investigated. PWT mixed with Kaolin in different percentages of 0%, 20%, 40% and 60% by weight. Sample preparation was according to British standard. A number of 20

permeability tests were conducted on four different mixtures included pure Kaolin. The results indicated that permeability of Kaolin-PWT mixtures increased up to 467% for 60% of PWT replaced with Kaolin in comparison with pure Kaolin. Therefore, replacing more amount of PWT with Kaolin increases the permeability.

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