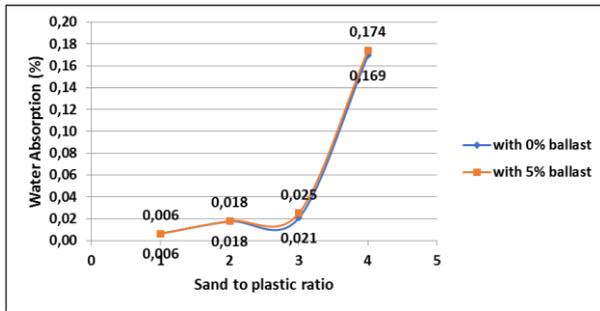


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**Fig. 9:** Influence of addition of coarse aggregate in water absorption ability of paving blocks

## V. CONCLUSIONS

- Sand and coarse aggregates present a very good bonding connexion with melted LDPE plastic as binder.
- Sand and coarse aggregate of small size (between 4 mm and 10 mm) and angular shape can be used as main composition material for making paving blocks with melted plastic as binder.
- Coarse aggregate of small size increase the strength of paving blocks made with LDPE and sand only.
- The compressive strength (15.452 MPa) of paving blocks made with LDPE plastic and aggregate approaches the compressive strength of an ordinary C20 concrete paving block.
- The use of LDPE plastic waste offers a better way of disposal of waste plastic bags for environmental protection.
- LDPE plastic waste paving blocks present a better resistance against aggressive effect of water than concrete paving blocks.
- The mechanical properties of LDPE plastic paving blocks are relatively low compared to the concrete ones (C20, C25, C30). Hence, they can be used for gardens, cycle ways, pedestrian ways and light traffic roads.

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