



# Geopolymers

## Lab trials and setting control with lime

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# Geopolymers



GBFS

Fly Ash



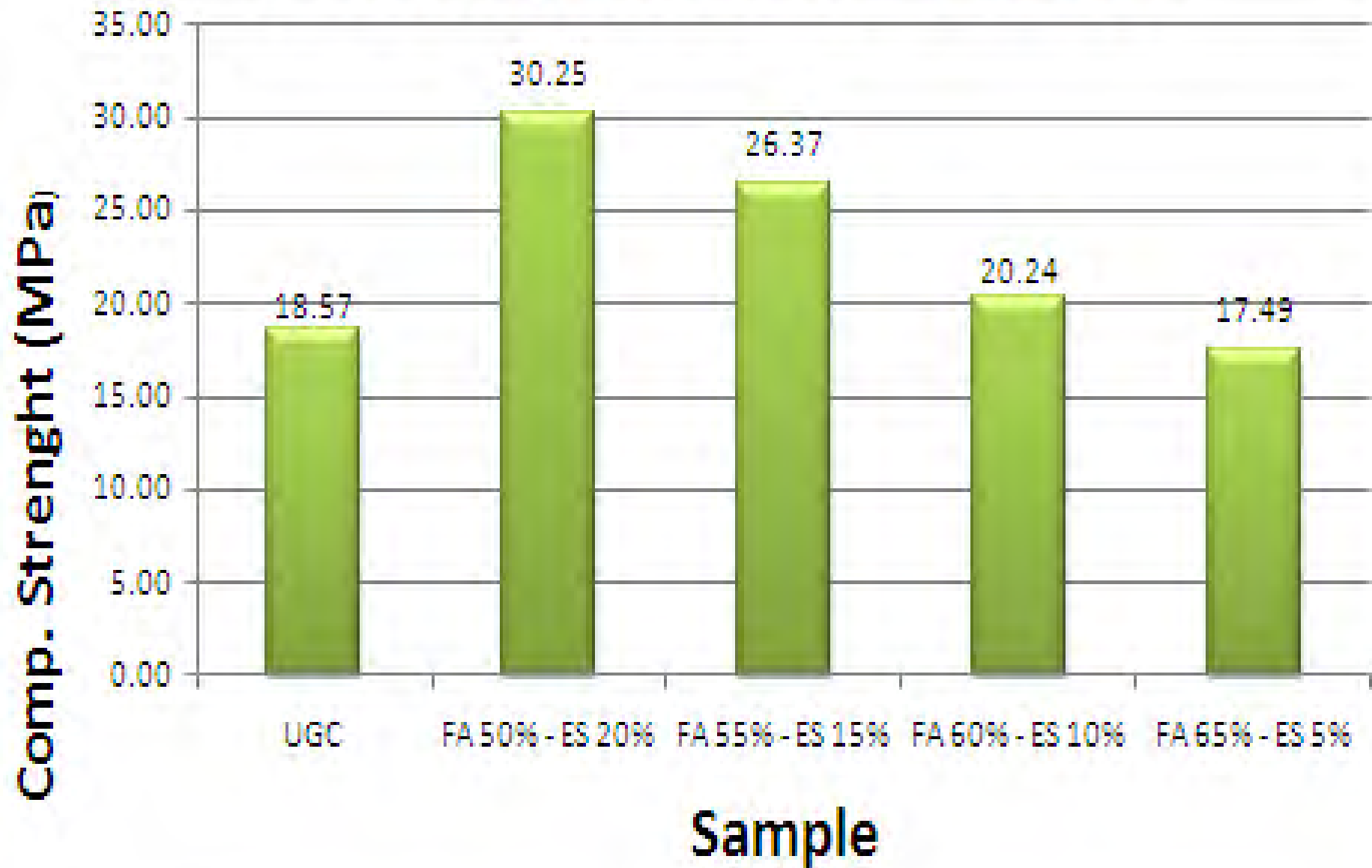
Alkaline  
Activator





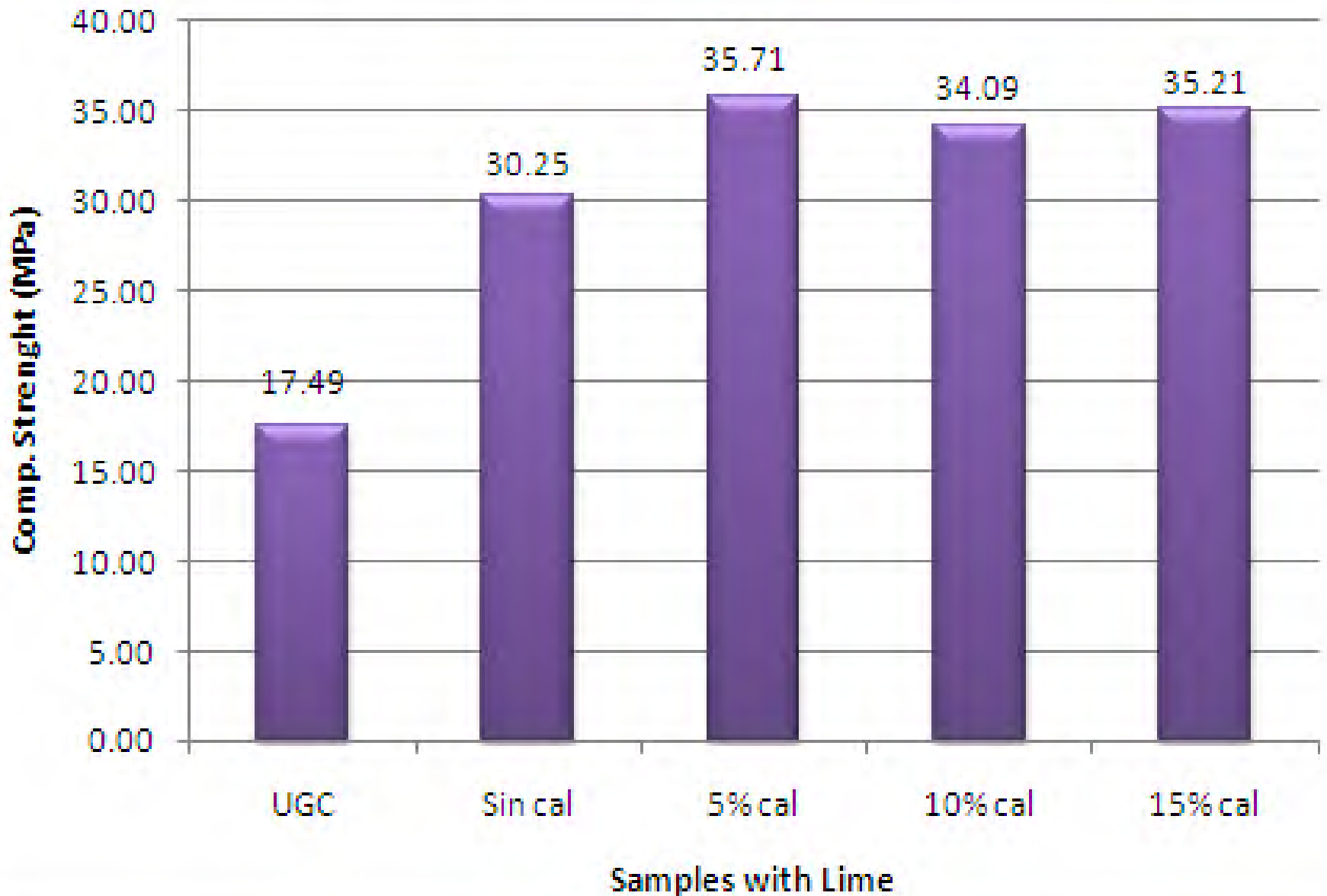
# Our Lab results

# Comp. Strenght FA+GBFS+Alk 24 hrs 60C

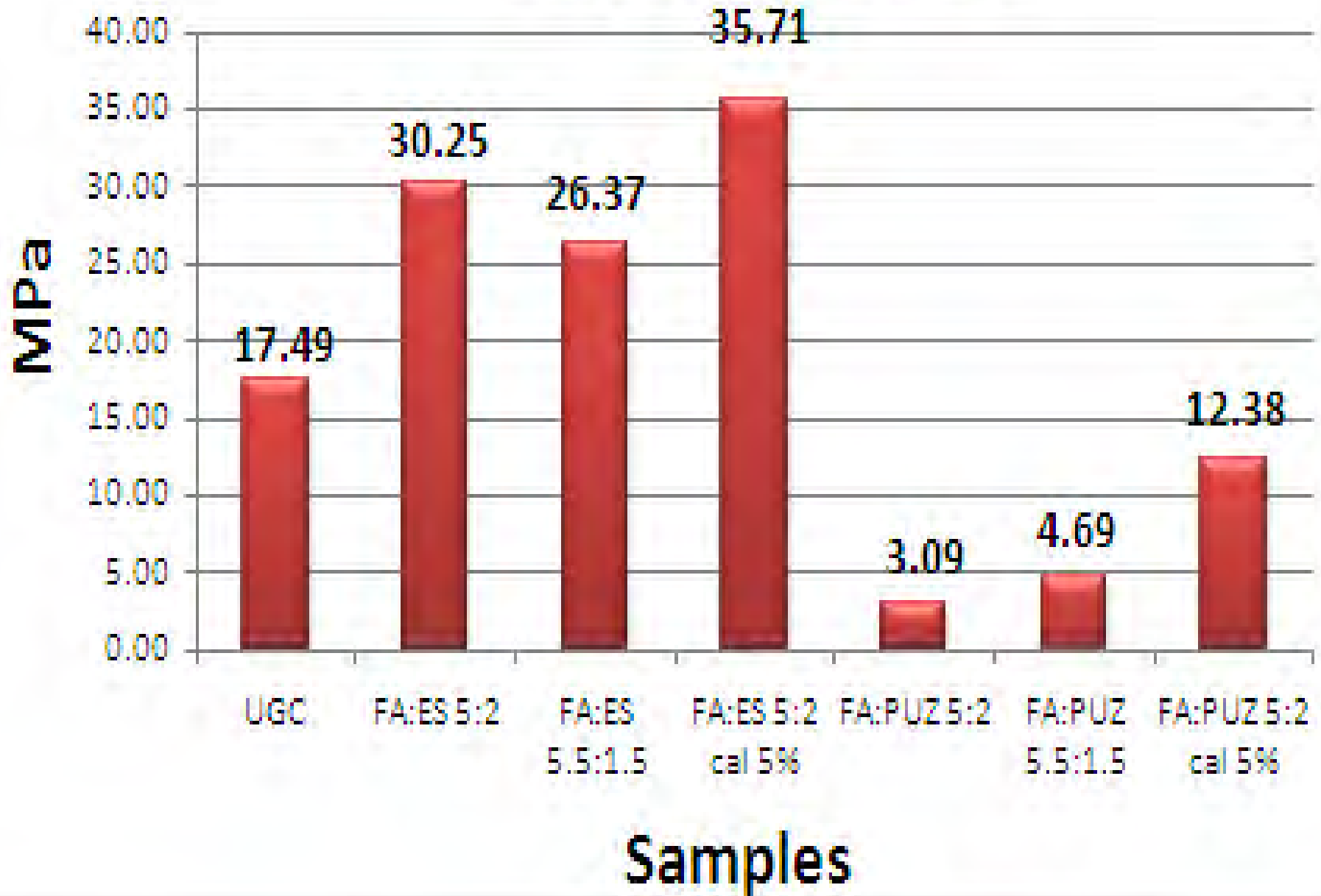


# Preparations with lime

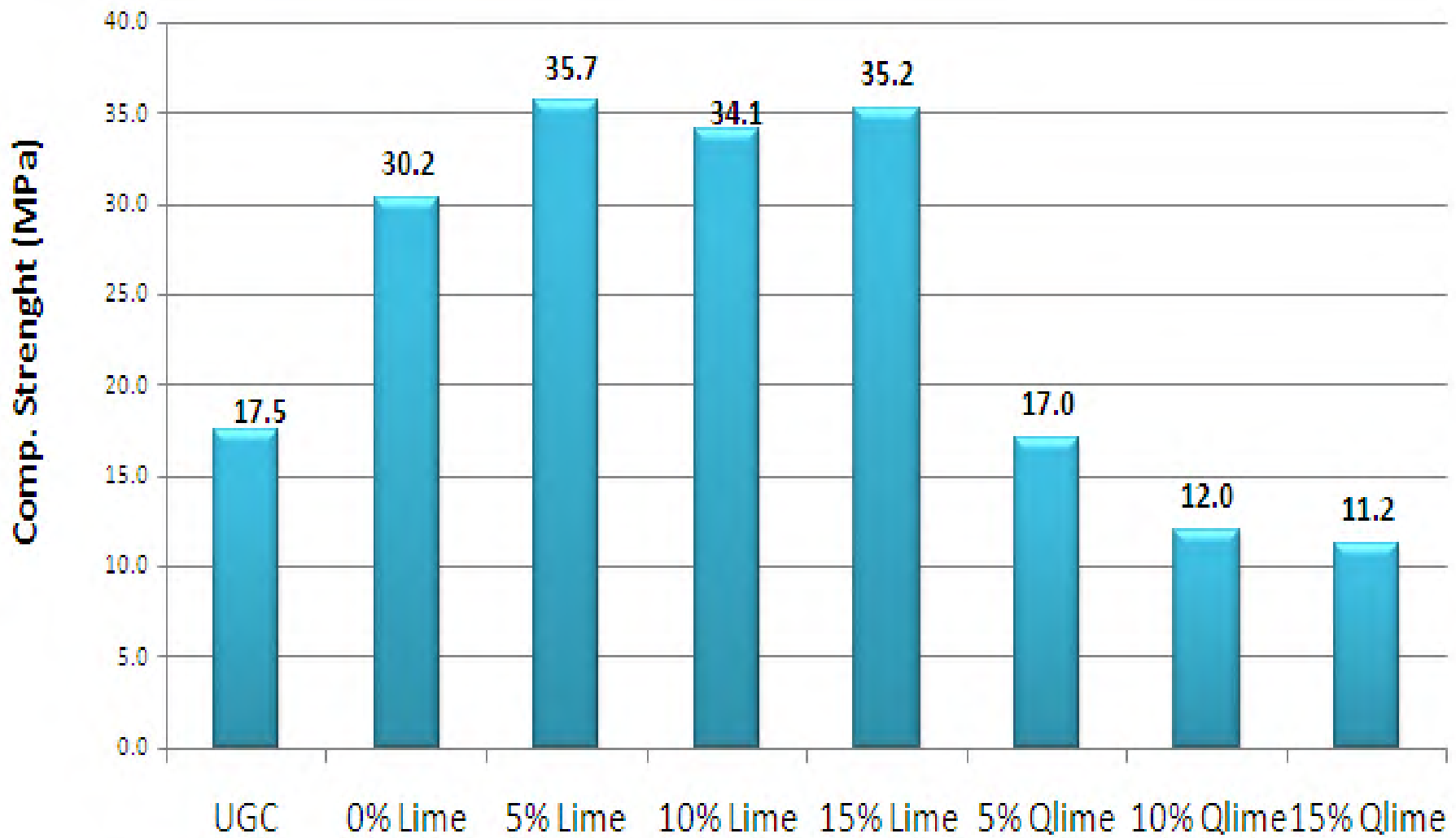
Fixed FA/GBFS 5:2



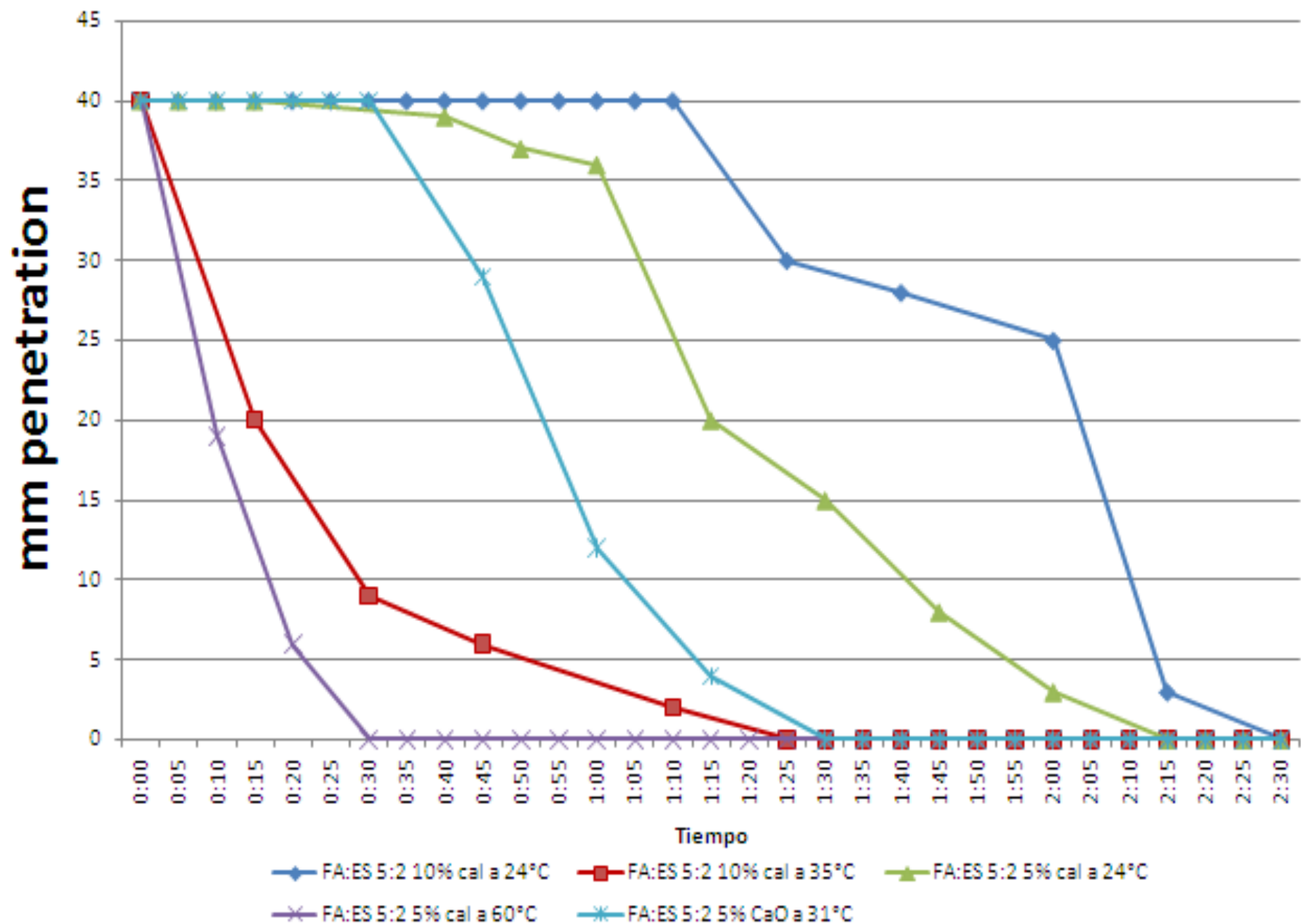
# GBFS vrs Pozzolana



### FA+GBFS Lime Qlime addition 24 hrs 60 C

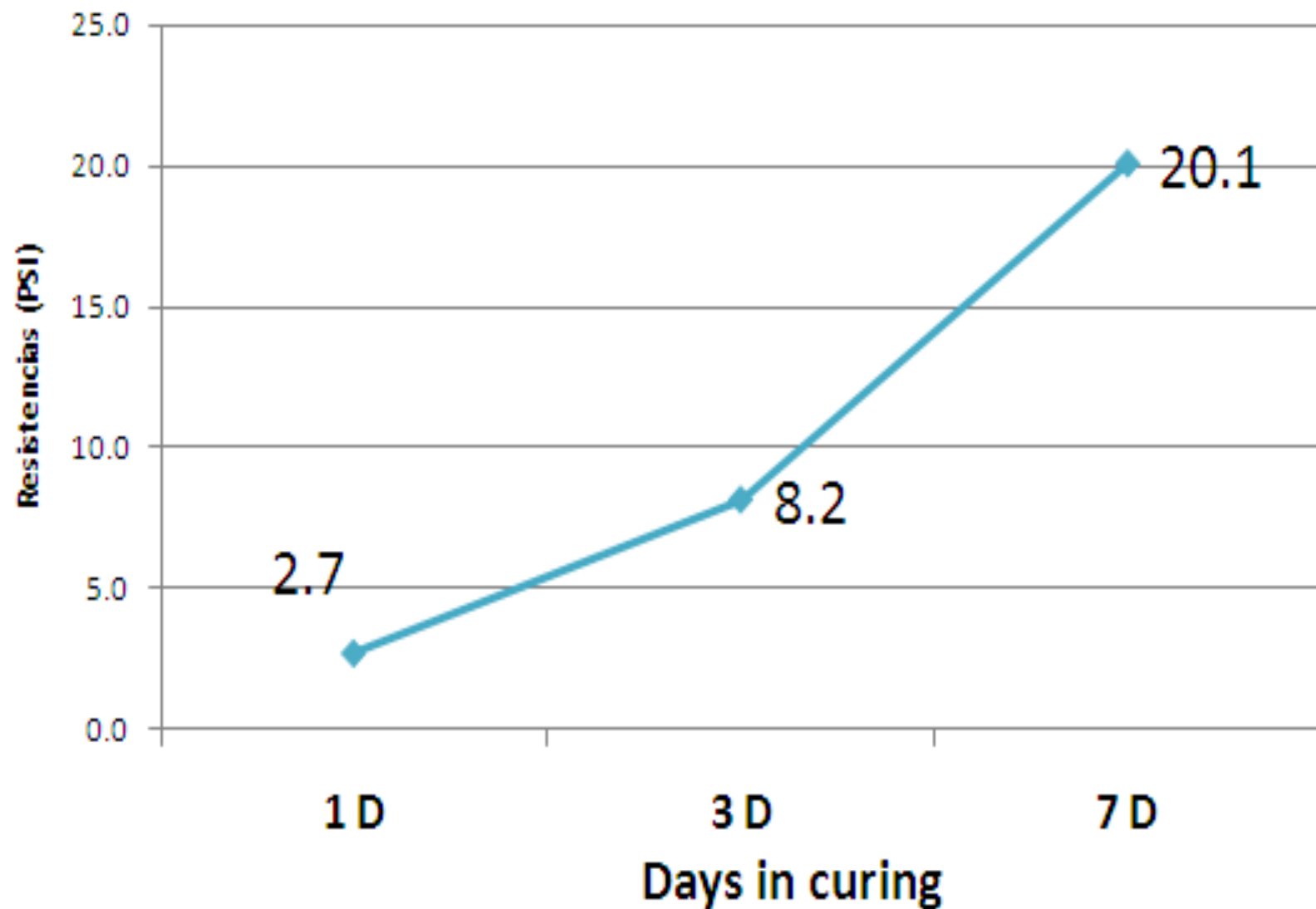


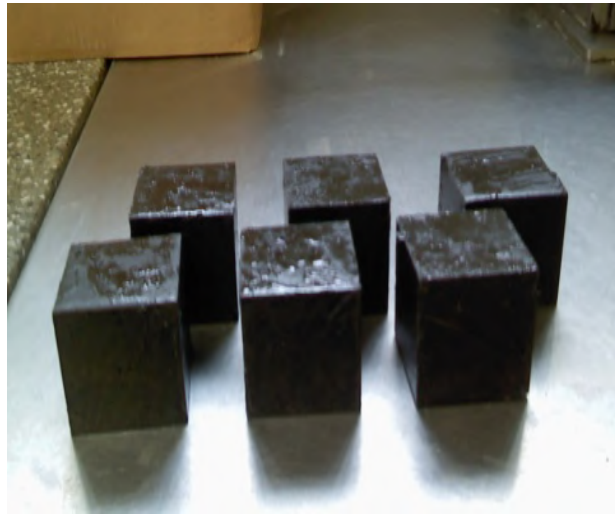
### Vicat setting time (min)





## FA+GBFS + alkali cured ambient temperature







# Conclusions:

- 1. Geopolimers can be used to substitute some type of applications of cement.**
- 2. Lime can be used to control setting behaviour of this material, in order to provide enough workability.**
- 3. Geopolimers are subject to influences of curing temperature.**
- 4. Further research is needed and is underway .**
- 5. Specific applications can be done for the “efficient wood ovens”.**



**"There's a way to do it  
better—find it."  
— Thomas Edison**

**Gracias!!, Thank you!! Merci!!!**