

**Study of keto-hydrazide crosslinking effect in acrylic latex applied to Portland cements
with respect to physical properties**

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Table S1. Composition of Portland cement used.

Composition	(wt. %)
SiO ₂	19.50
Al ₂ O ₃	4.70
Fe ₂ O ₃	3.34
CaO	63.19
MgO	1.52
K ₂ O	0.78
Na ₂ O	0.19
SO ₃	3.07
Cl ⁻	0.07

Table S2. Basic material properties of CEM I.

Characteristic	CEM I	Standard
Powder density (kg·m ⁻³)	980	EN 1097-3 [54]
Specific density (kg·m ⁻³)	3 130	EN 1097-7 [55]
Specific surface area (m ⁻² ·kg)	388	EN 196-6 [56]
Initial setting time (min)	194	EN 196-3 [57]
Final setting time (min)	260	
Loss on ignition (wt.%)	3.38	EN 196-2 [58]

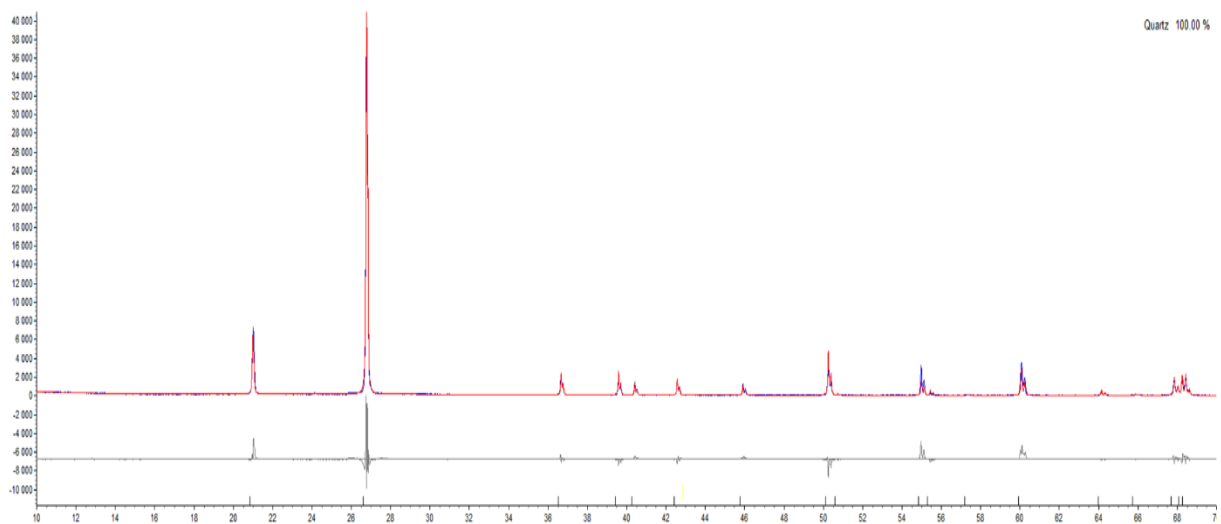


Fig. S1. Graphical output of Rietveld refinement of XRPD pattern for the used quartz aggregates. Observed (blue line), calculated (red line), and difference plots (grey) are reported. All reflection positions (blue markers) correspond to quartz.

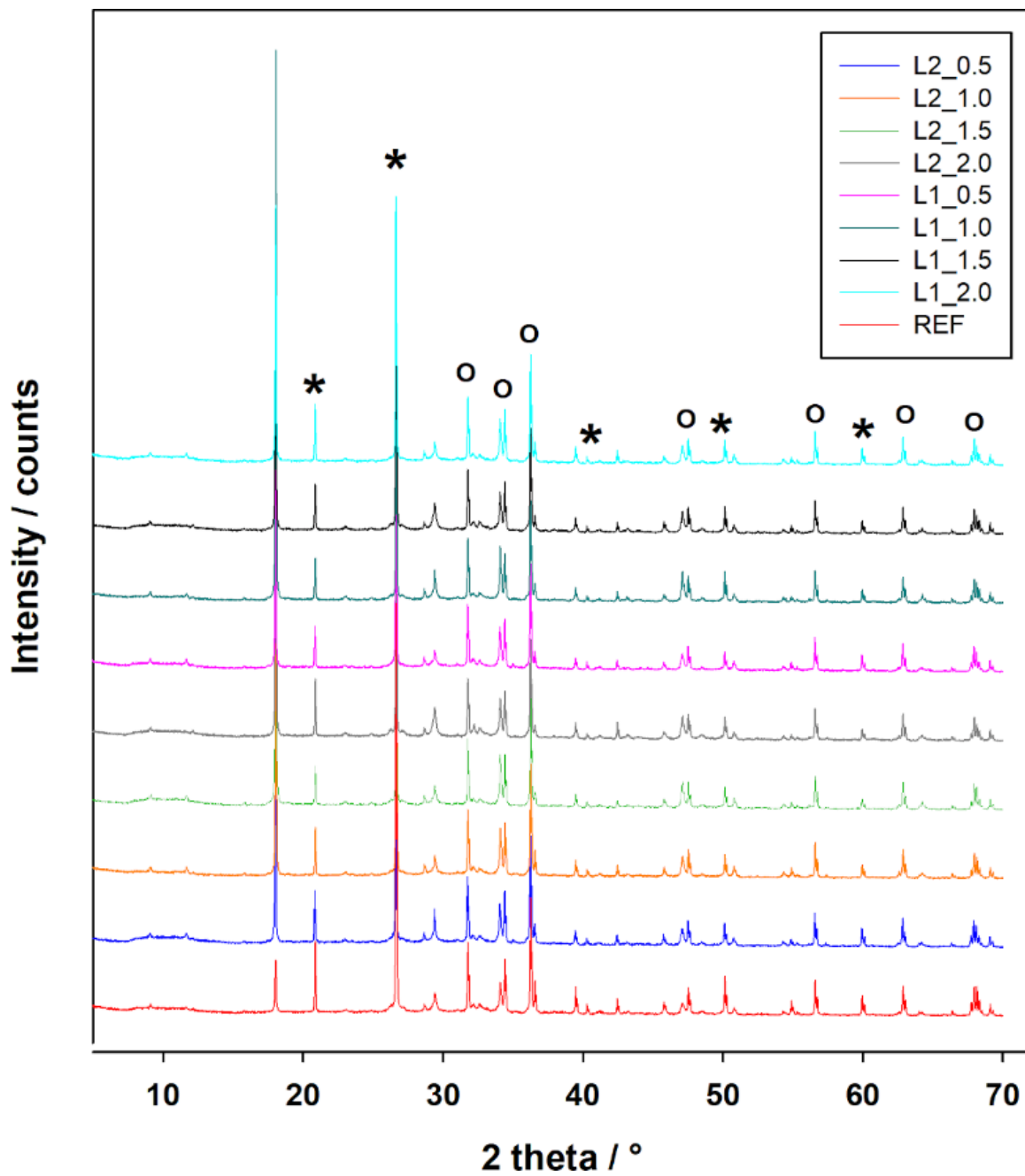


Fig. S2. XRPD patterns for all investigated samples. Asterisks (*) mark the main diffraction peaks of quartz (aggregate fraction), (°) mark the main diffraction peaks of ZnO (internal standard).

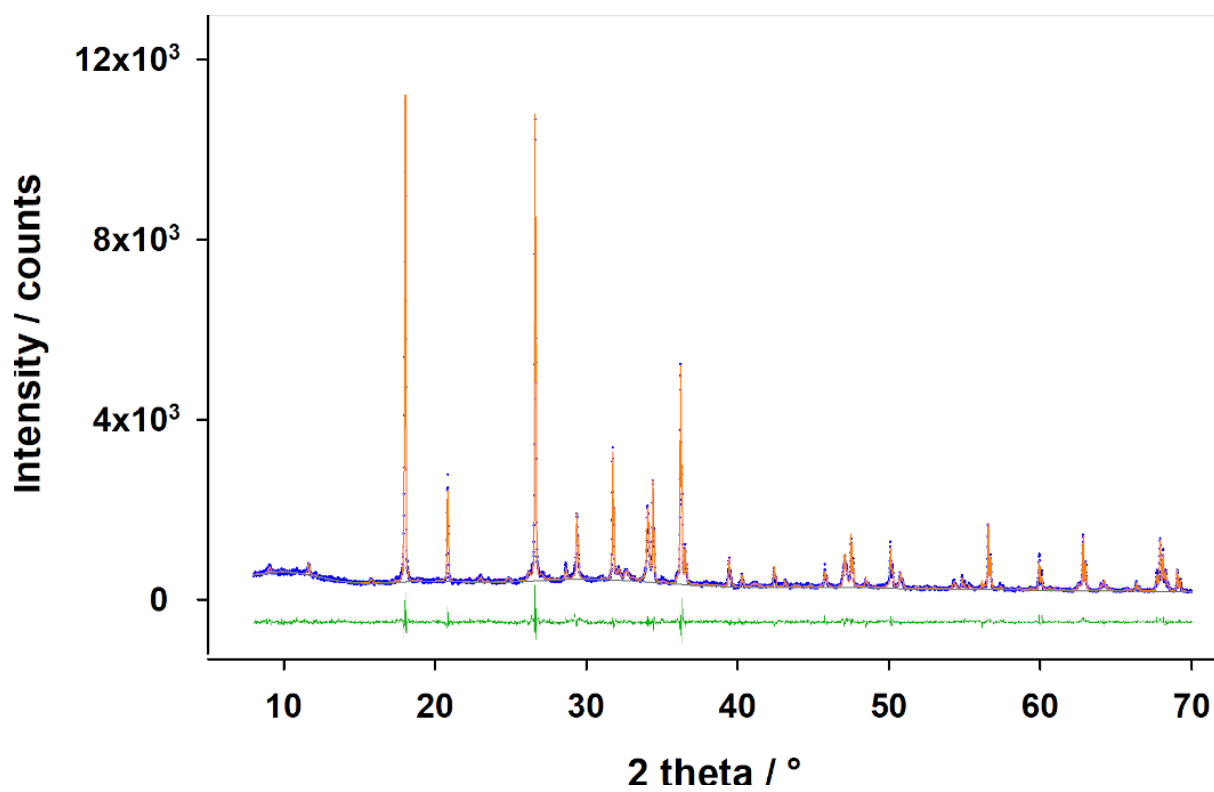


Fig. S3. Graphical output of Rietveld refinement of XRPD pattern for sample L2_0.5. Observed (blue crosses), calculated (orange line), background (grey line) and difference plots (green) are reported.