Recycling of Plastics from Cable Waste from Automotive In-dustry in Poland as an Approach to the Circular Economy

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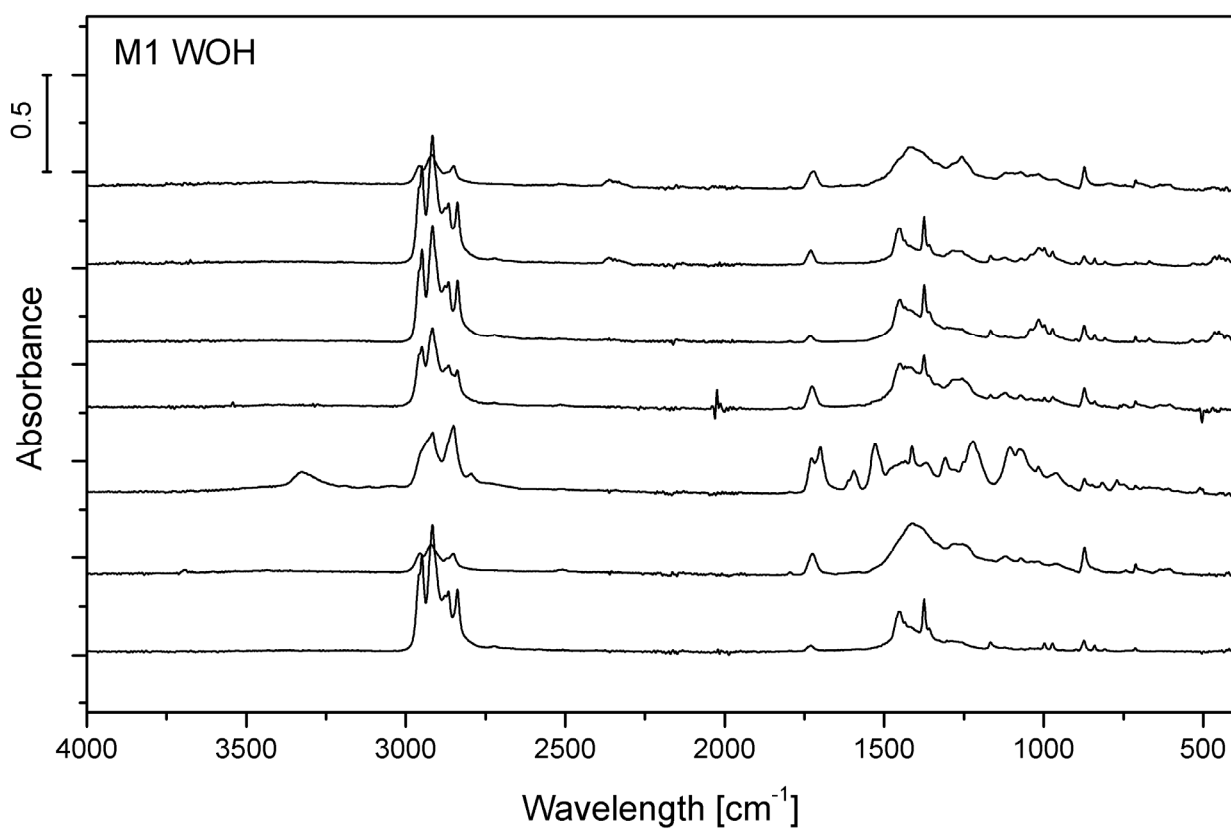
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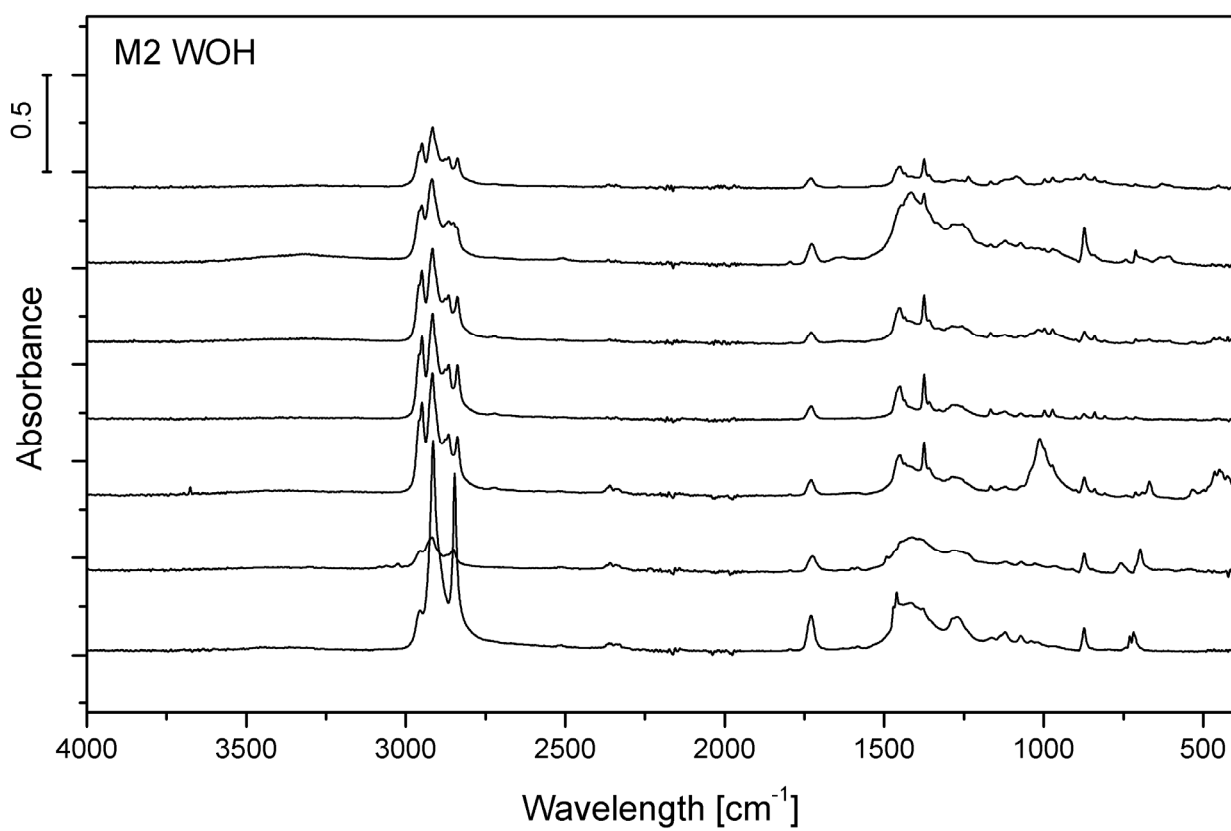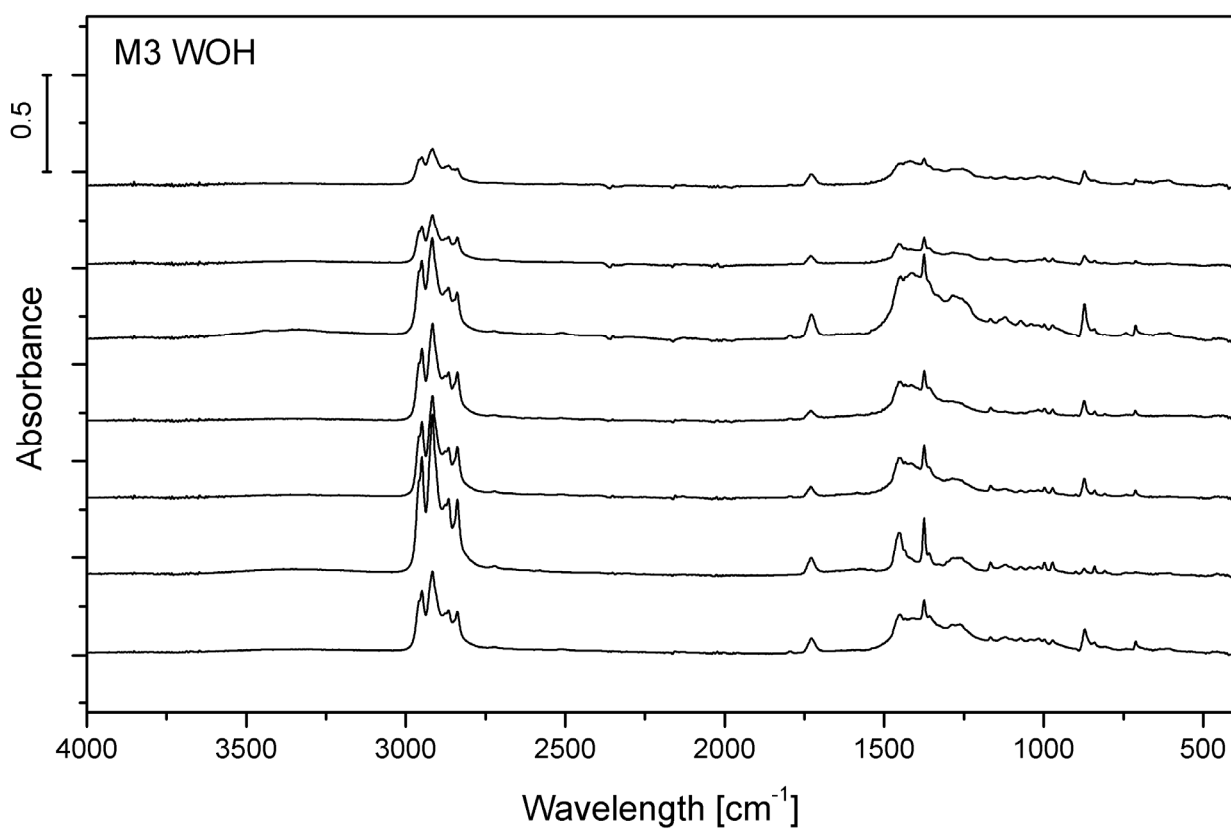
Supplementary information
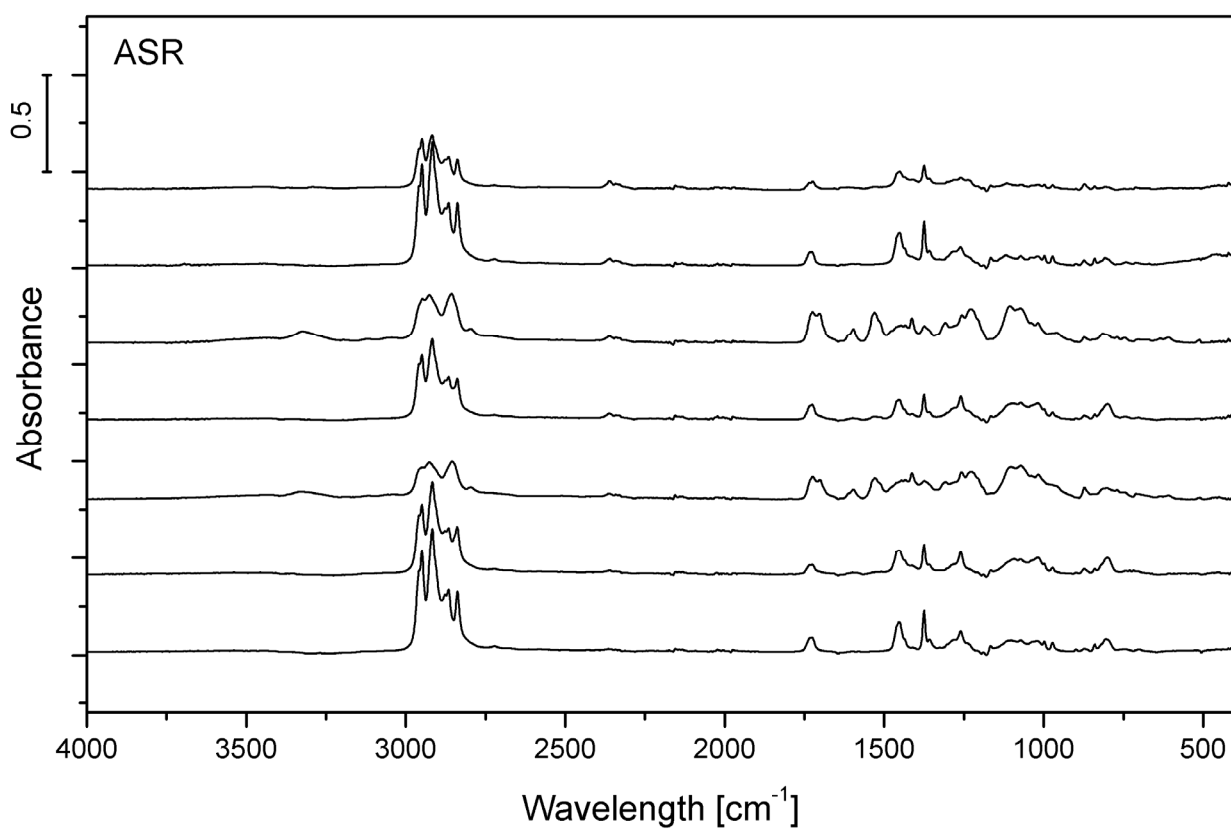
Figure S1. Selected FTIR-ATR spectra taken from ASR compression molded samples.
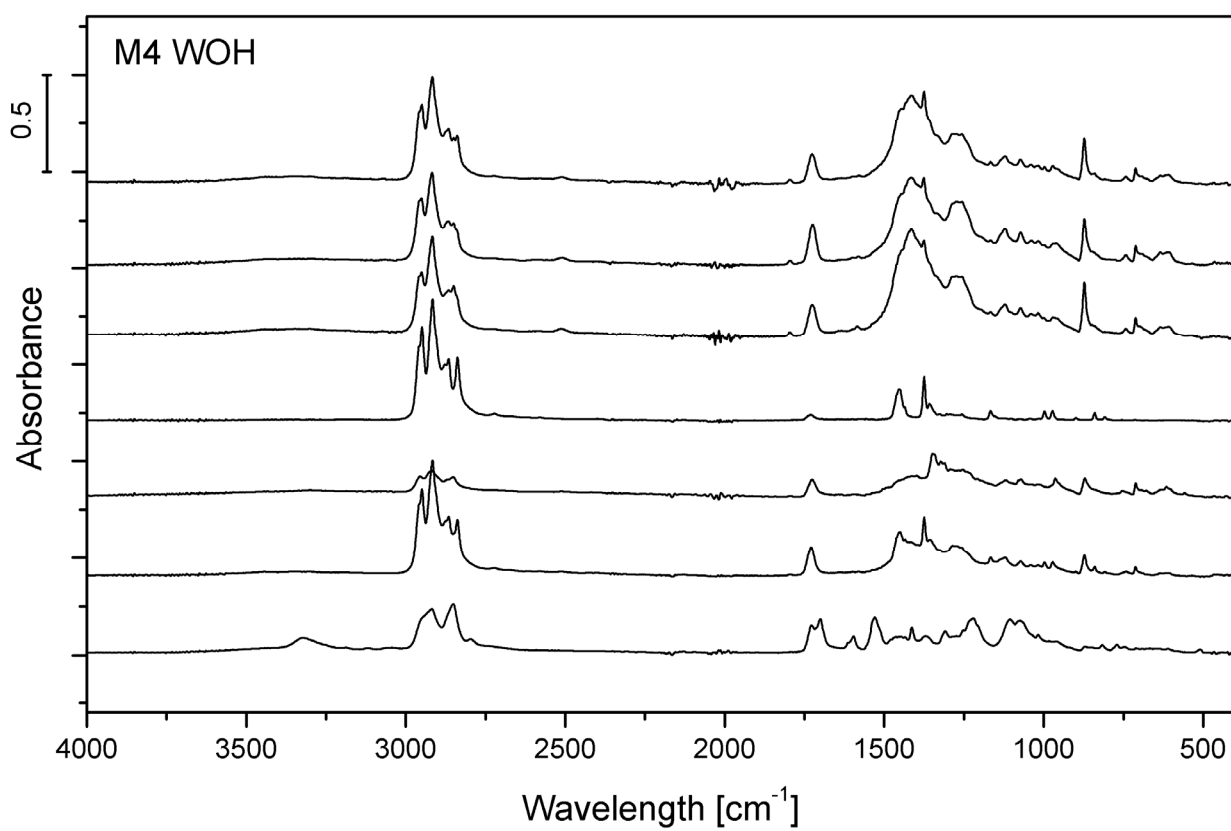
Figure S2. Selected FTIR-ATR spectra taken from M1 WOH compression molded samples.
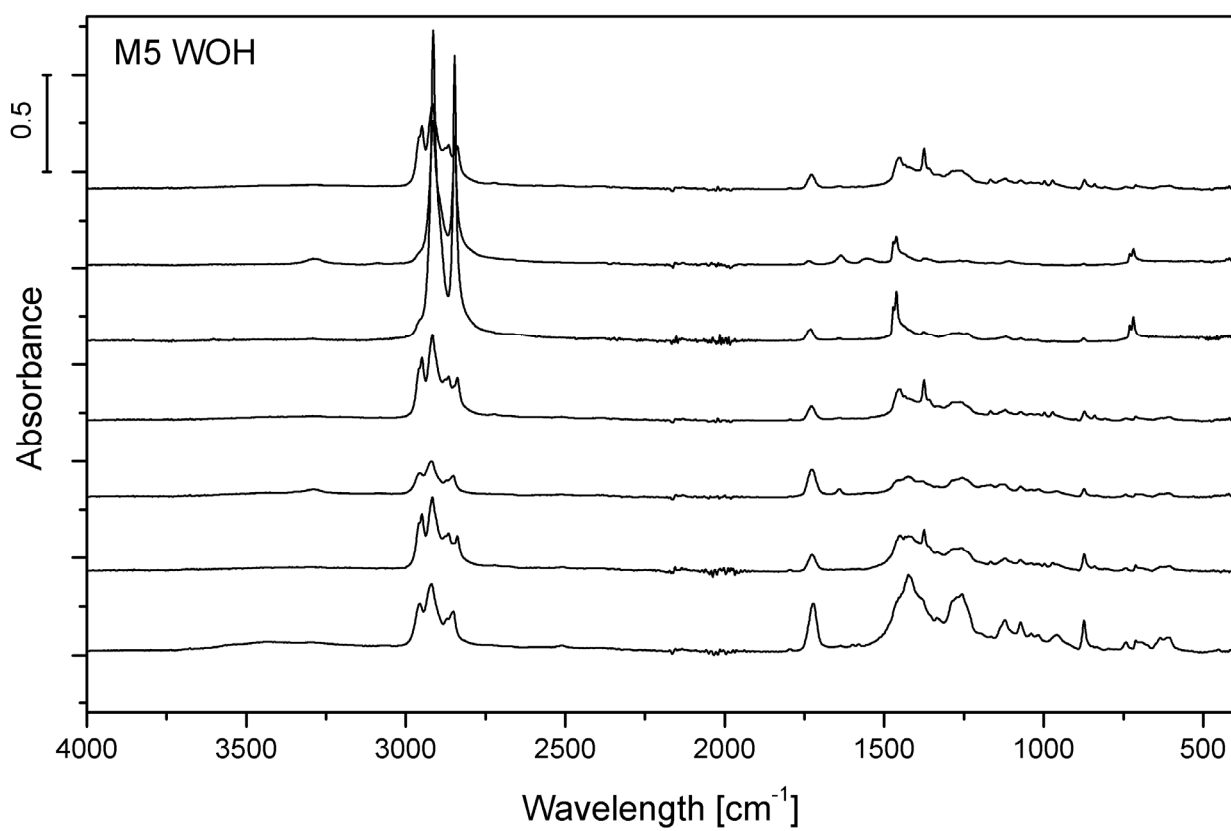
Figure S3. Selected FTIR-ATR spectra taken from M2 WOH compression molded samples.

Figure S4. Selected FTIR-ATR spectra taken from M3 WOH compression molded samples.

Figure S5. Selected FTIR-ATR spectra taken from M4 WOH compression molded samples.

Figure S6. Selected FTIR-ATR spectra taken from M5 WOH compression molded samples.

Figure S7. Selected FTIR-ATR spectra taken from M6 WOH compression molded samples.

Figure S8. Selected FTIR-ATR spectra taken from M1 WH compression molded samples.

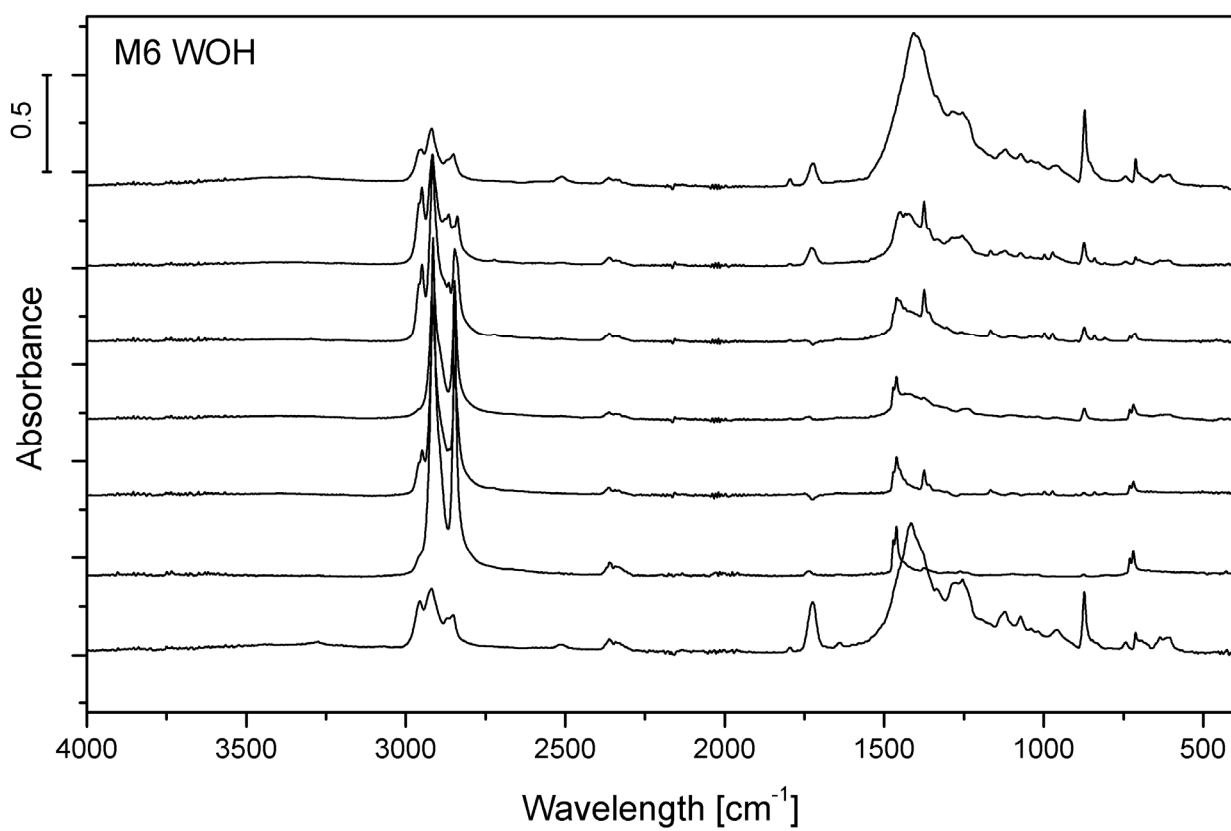**Figure S9.** Selected FTIR-ATR spectra taken from M2 WH compression molded samples.

Figure S10. Selected FTIR-ATR spectra taken from M3 WH compression molded samples.

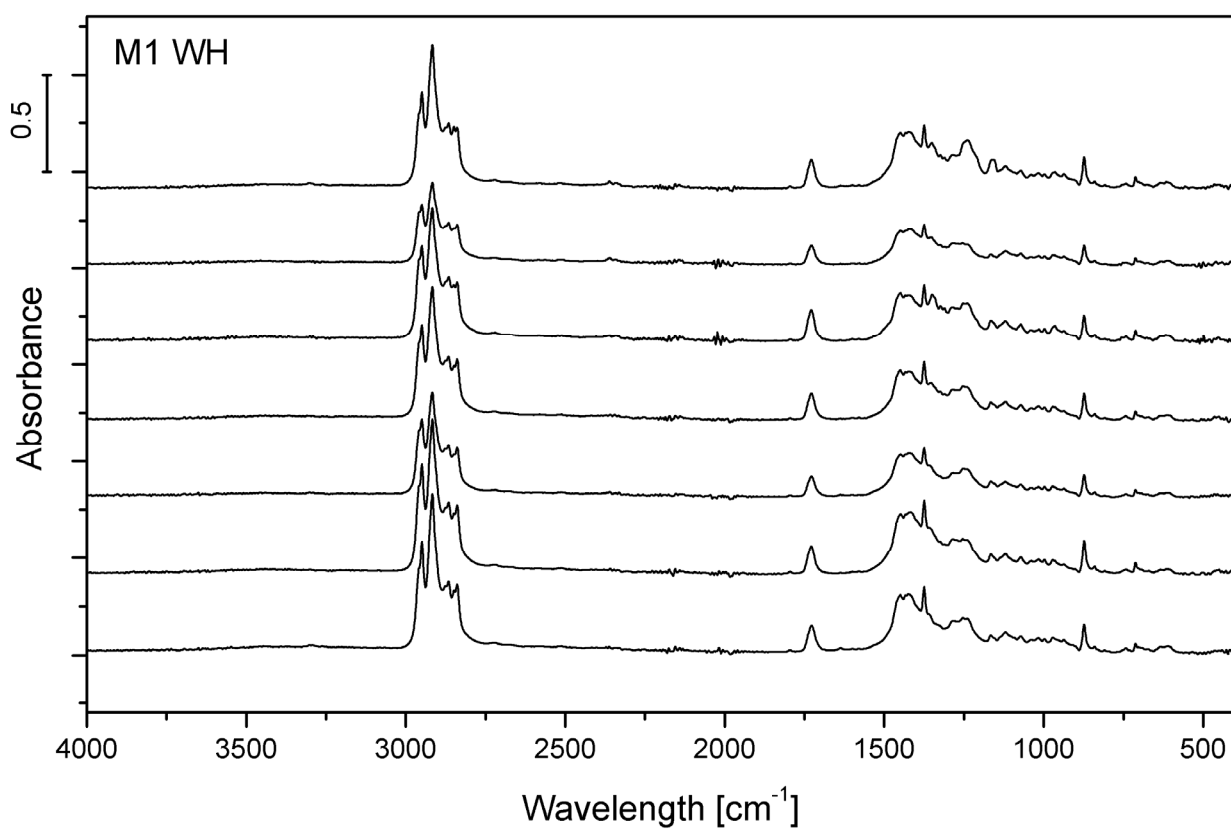**Figure S11.** Selected FTIR-ATR spectra taken from M4 WH compression molded samples.

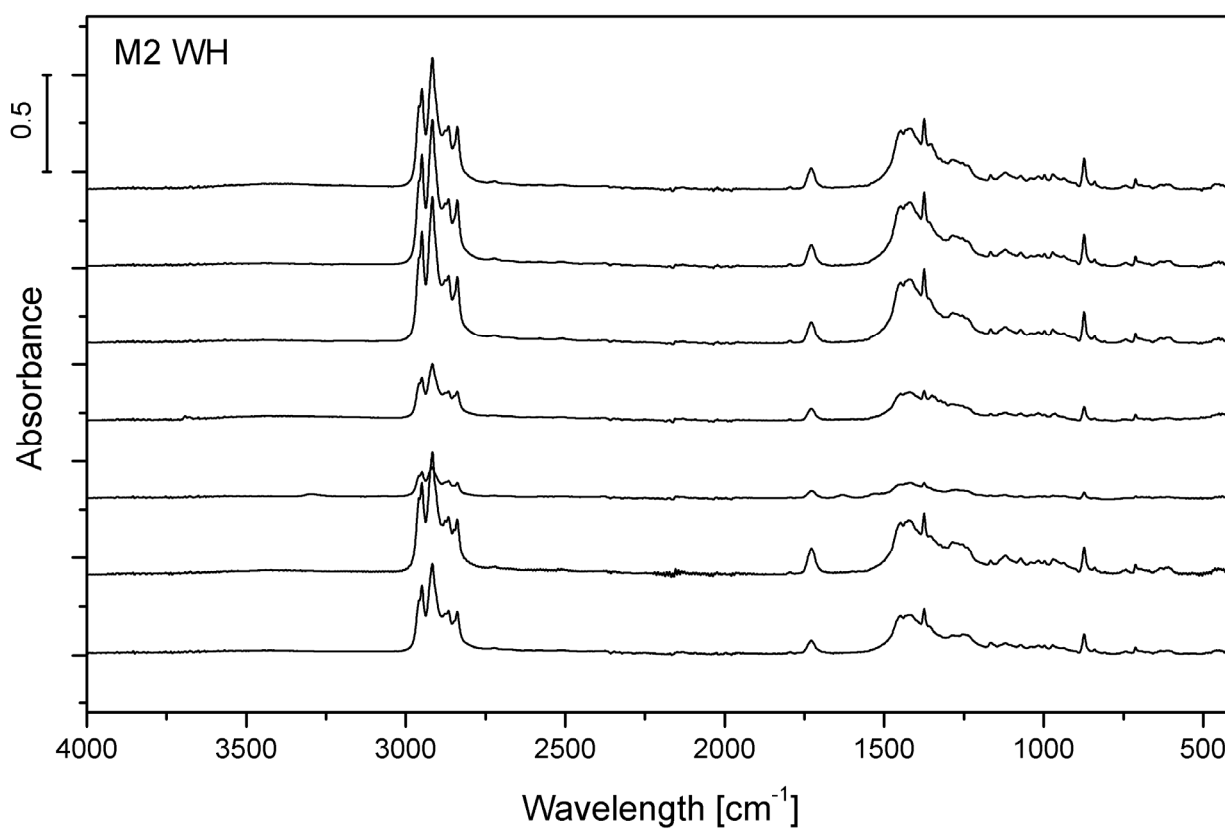**Figure S12.** Selected FTIR-ATR spectra taken from M5 WH compression molded samples.

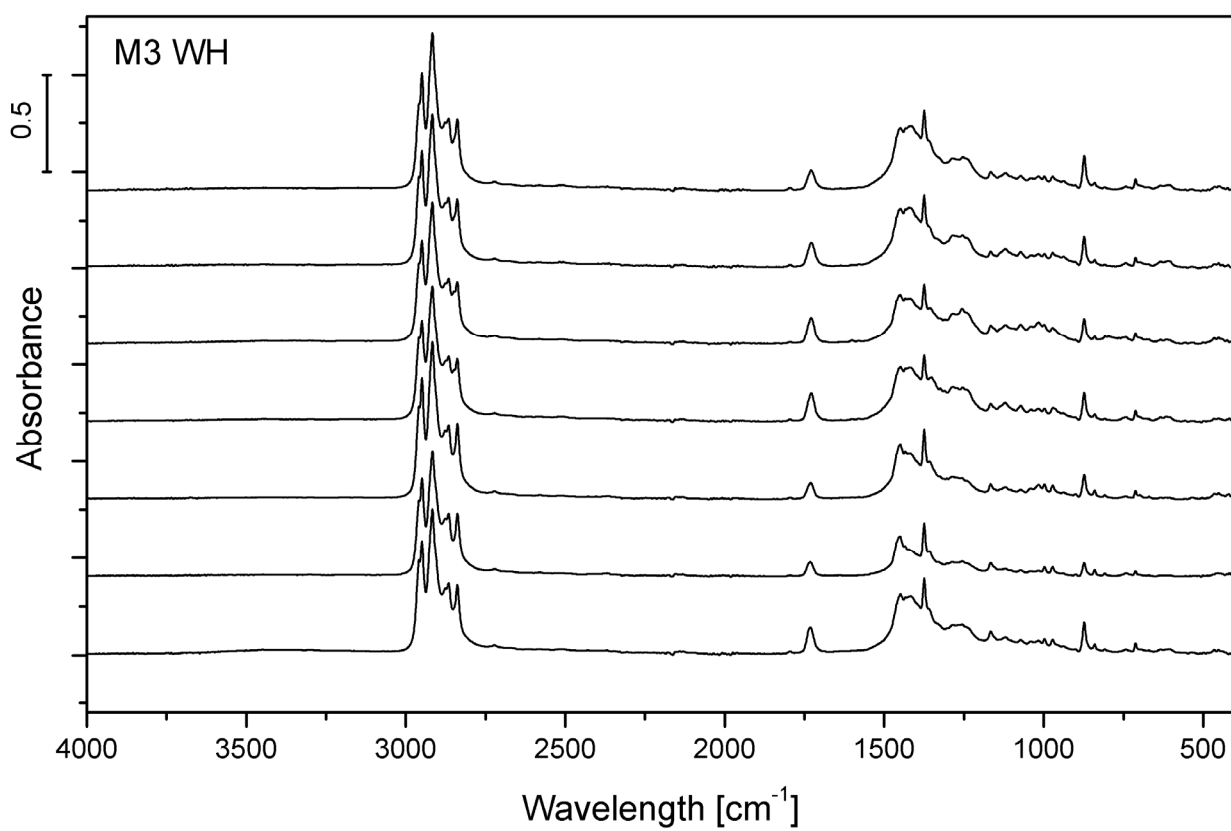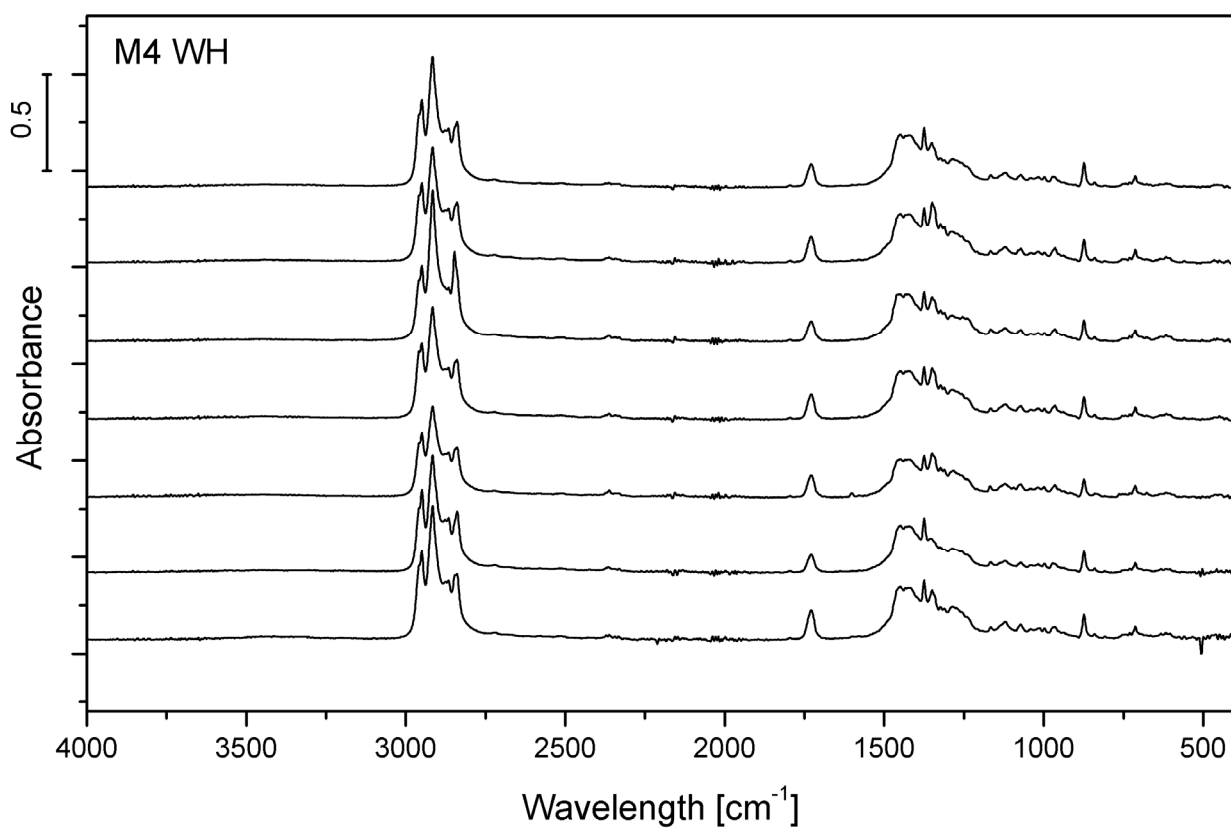**Figure S13.** Selected FTIR-ATR spectra taken from M6 WH compression molded samples.
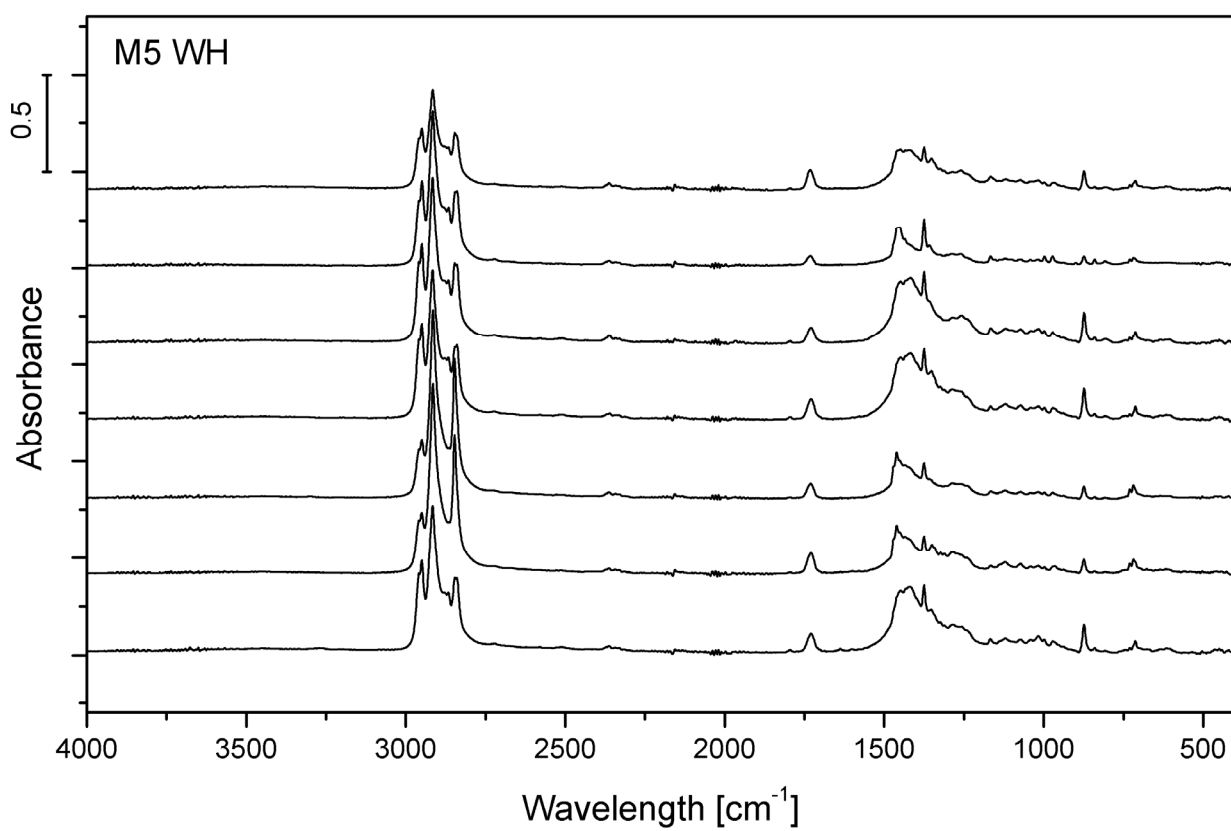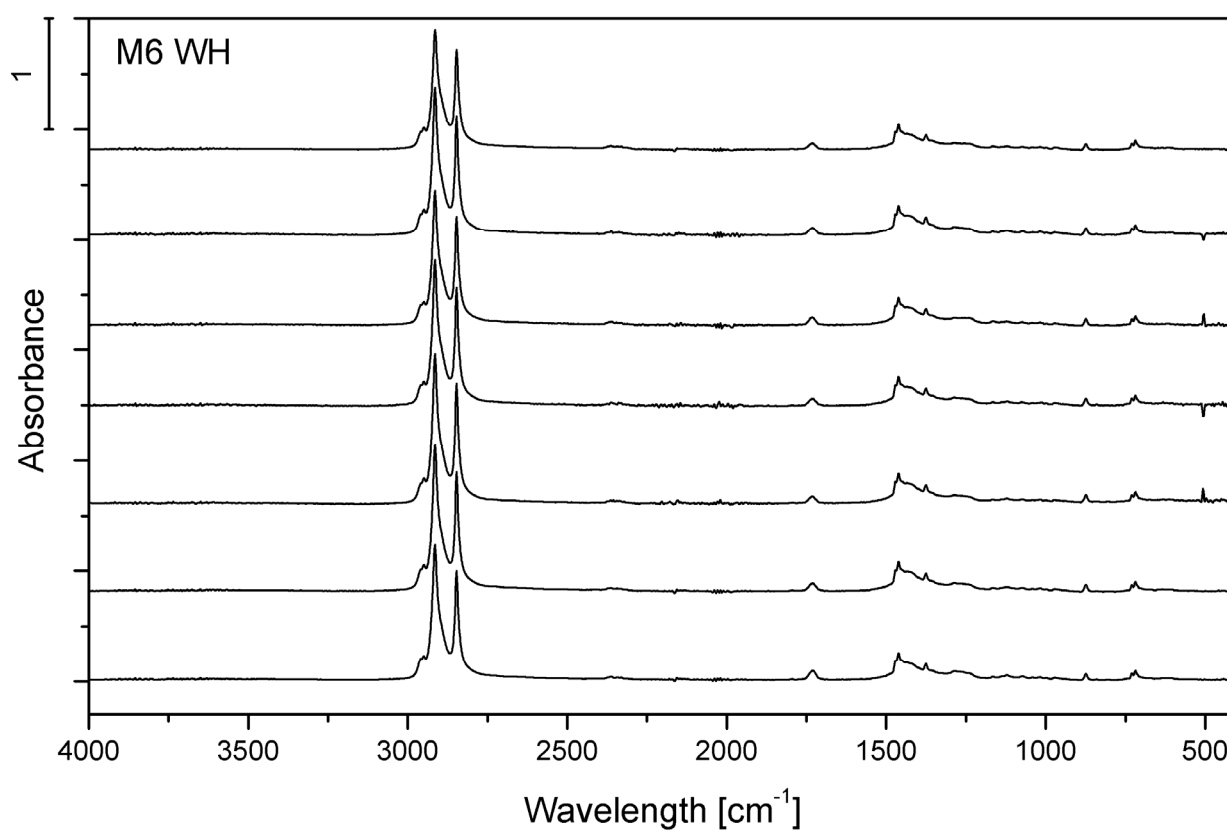
Table S1. FTIR-ATR spectra identification matches for selected points of compression-molded samples (average percentage value from 30 measurements).

Sample	Match 1	Match 2	Residual matches
ASR	poly(vinyl chloride) (47%)	cis-1,4-polyisoprene rubber (21%)	polybutene polyurethane
M1 WOH	poly(vinyl chloride) (42%)	cis-1,4-polyisoprene rubber (16%)	polypropylene polybutene hydrogenated styrene/butadiene polyurethane
M2 WOH	poly(vinyl chloride) (54%)	cis-1,4-polyisoprene rubber (12%)	high-density polyethylene polybutene hydrogenated styrene/butadiene polypropylene
M3 WOH	poly(vinyl chloride) (42%)	cis-1,4-polyisoprene rubber (16%)	polybutene polyether block copolymer vinyl resin polyurethane polyester trans-1,4-polyisoprene
M4 WOH	poly(vinyl chloride) (63%)	polyurethane (8%)	polyester cis-1,4-polyisoprene rubber trans-1,4-polyisoprene polyacrylonitrile
M5 WOH	poly(vinyl chloride) (66%)	polyester block copolymer (11%)	polyether imide vinyl resin
M6 WOH	poly(vinyl chloride) (33%)	cis-1,4-polyisoprene rubber (33%)	high-density polyethylene trans-1,4-polyisoprene polyetherimide vinyl resin
M1 WH	poly(vinyl chloride) (35%)	cis-1,4-polyisoprene rubber (30%)	polybutene hydrogenated styrene/butadiene
M2 WH	cis-1,4-polyisoprene rubber (33%)	poly(vinyl chloride) (25%)	polybutene polyethylene terephthalate hydrogenated styrene/butadiene trans-1,4-polyisoprene
M3 WH	cis-1,4-polyisoprene rubber (34%)	poly(vinyl chloride) (23%)	hydrogenated styrene/butadiene trans-1,4-polyisoprene polybutene polypropylene
M4 WH	cis-1,4-polyisoprene rubber (33%)	hydrogenated styrene/butadiene (33%)	poly(vinyl chloride) polybutene
M5 WH	cis-1,4-polyisoprene rubber (33%)	hydrogenated styrene/butadiene (24%)	high density polyethylene polybutylene trans-1,4-polyisoprene
M6 WH	high density polyethylene (58%)	cis-1,4-polyisoprene rubber (31%)	polybutene trans-1,4-polyisoprene
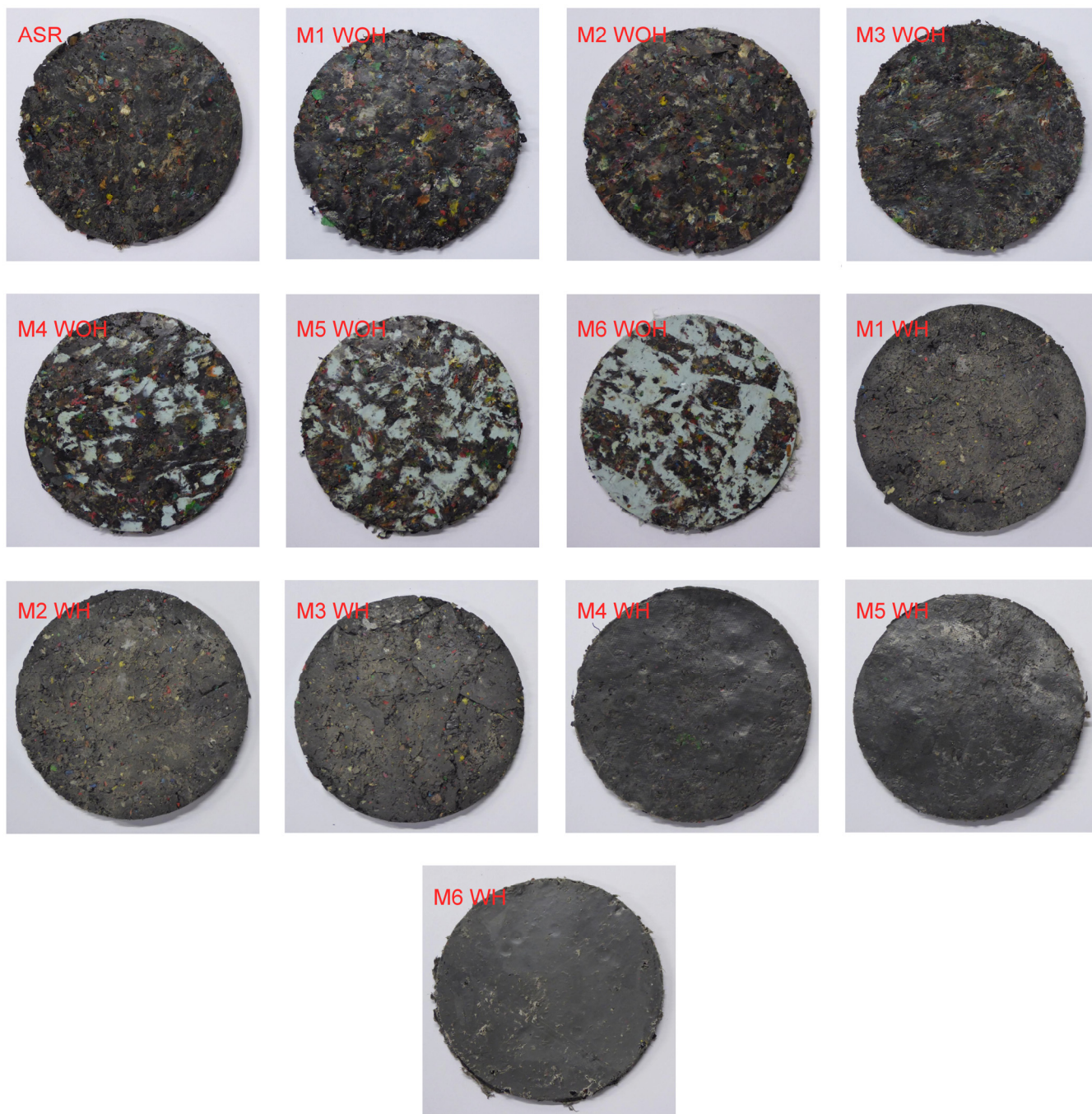
Figure S14. 100 mm samples used for acoustic properties determination.