



COMPARISON OF VIRGIN, SCRAP AND COMPOUNDED PP

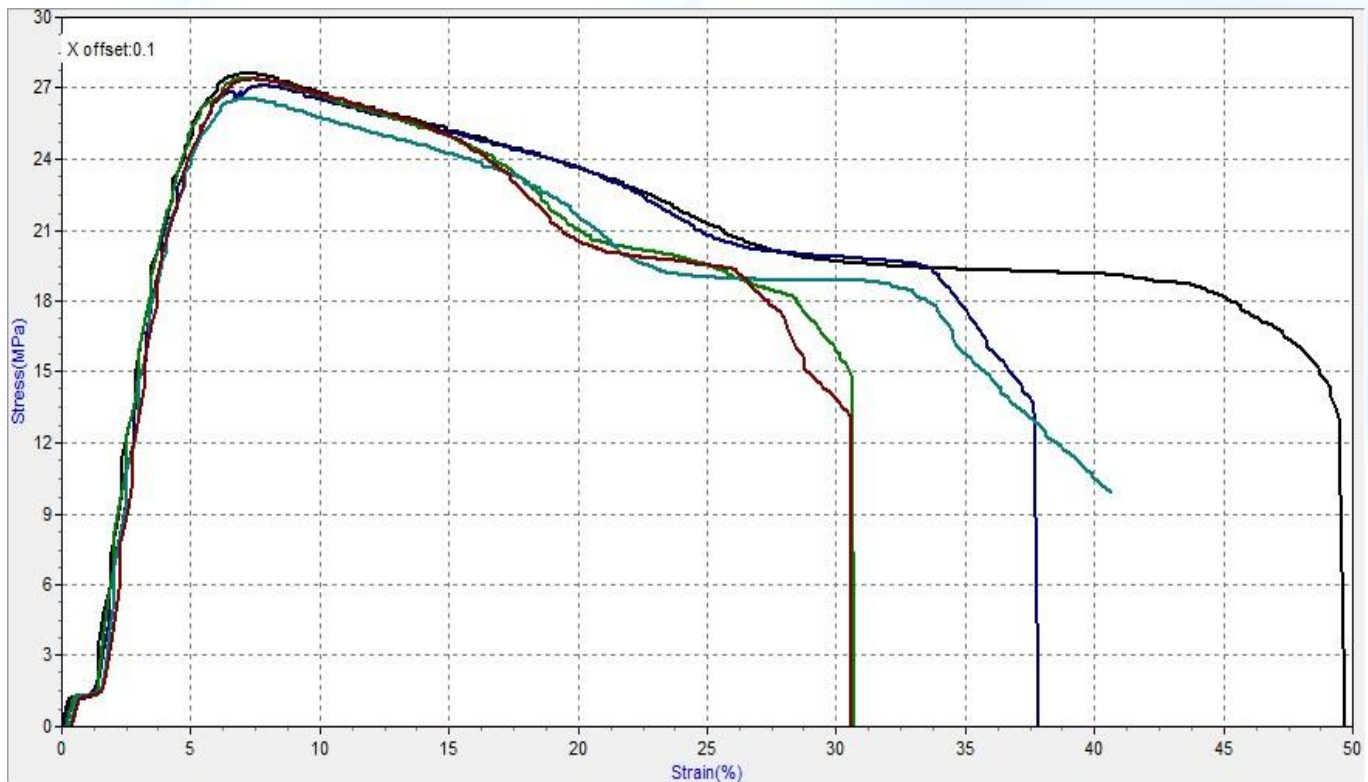
Materials used: xxx Polypropylene, Virgin Material
xxx Polypropylene Scrap Material

Tests Performed: Tensile Test with Universal Testing Machine
Charpy notched Impact Strength with Pendulum Charpy
Impact tester xxx Polypropylene Up-cycled Material by Graft Polymer

RESULTS

Virgin xxx PP

Property	Yield Strength [Mpa]	Yield Strain [%]	Break Stress [%]	Break Strain [%]
Value	27,2	7,7	12,9	37,6



Charpy Notched Impact Strength
26,4 [kJ/m²]

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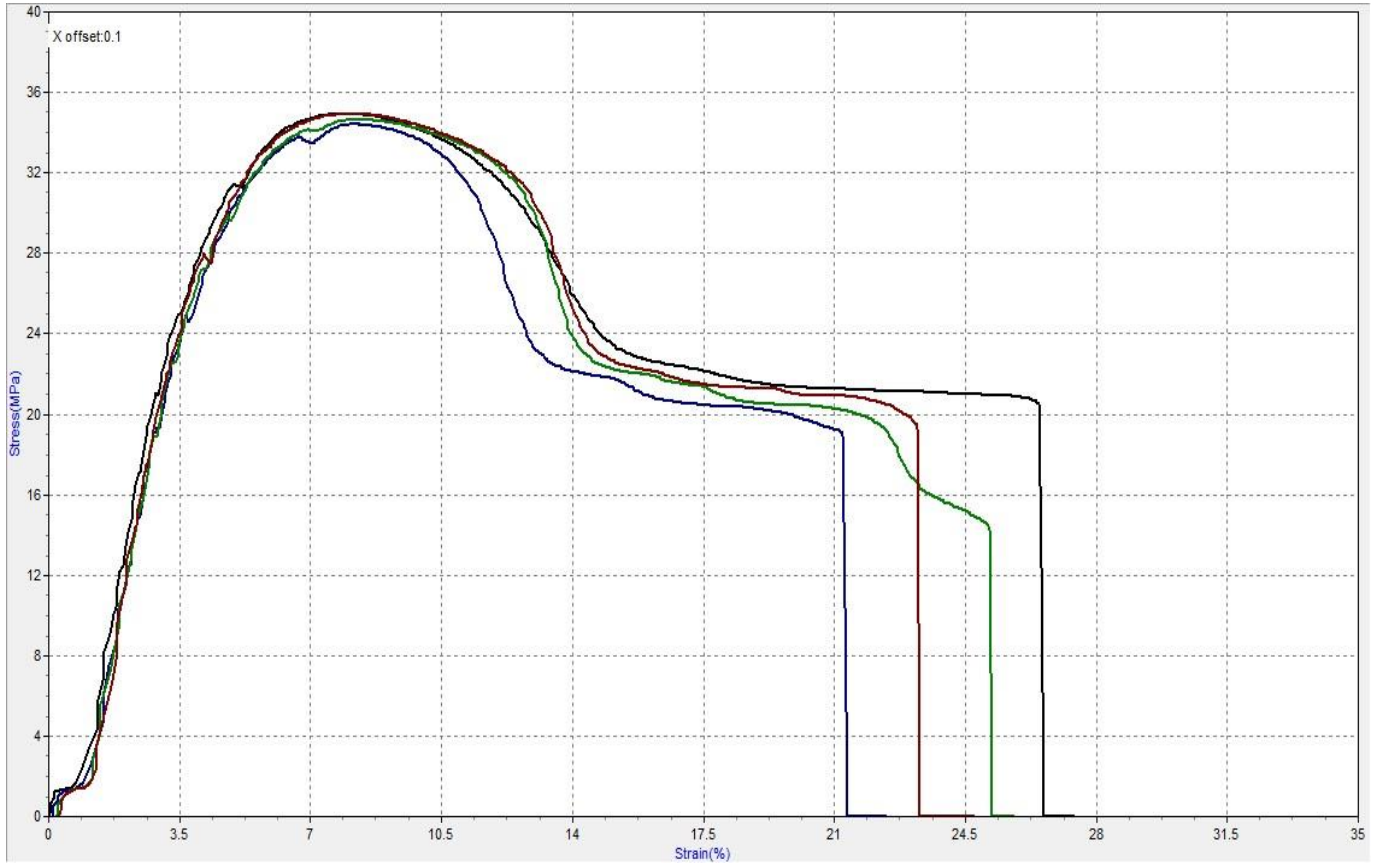
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Case Study Report

Scrap xxx PP

Property	Yield Strength [Mpa]	Yield Strain [%]	Break Stress [%]	Break Strain [%]
Value	34,6	8,08	15,4	25,6

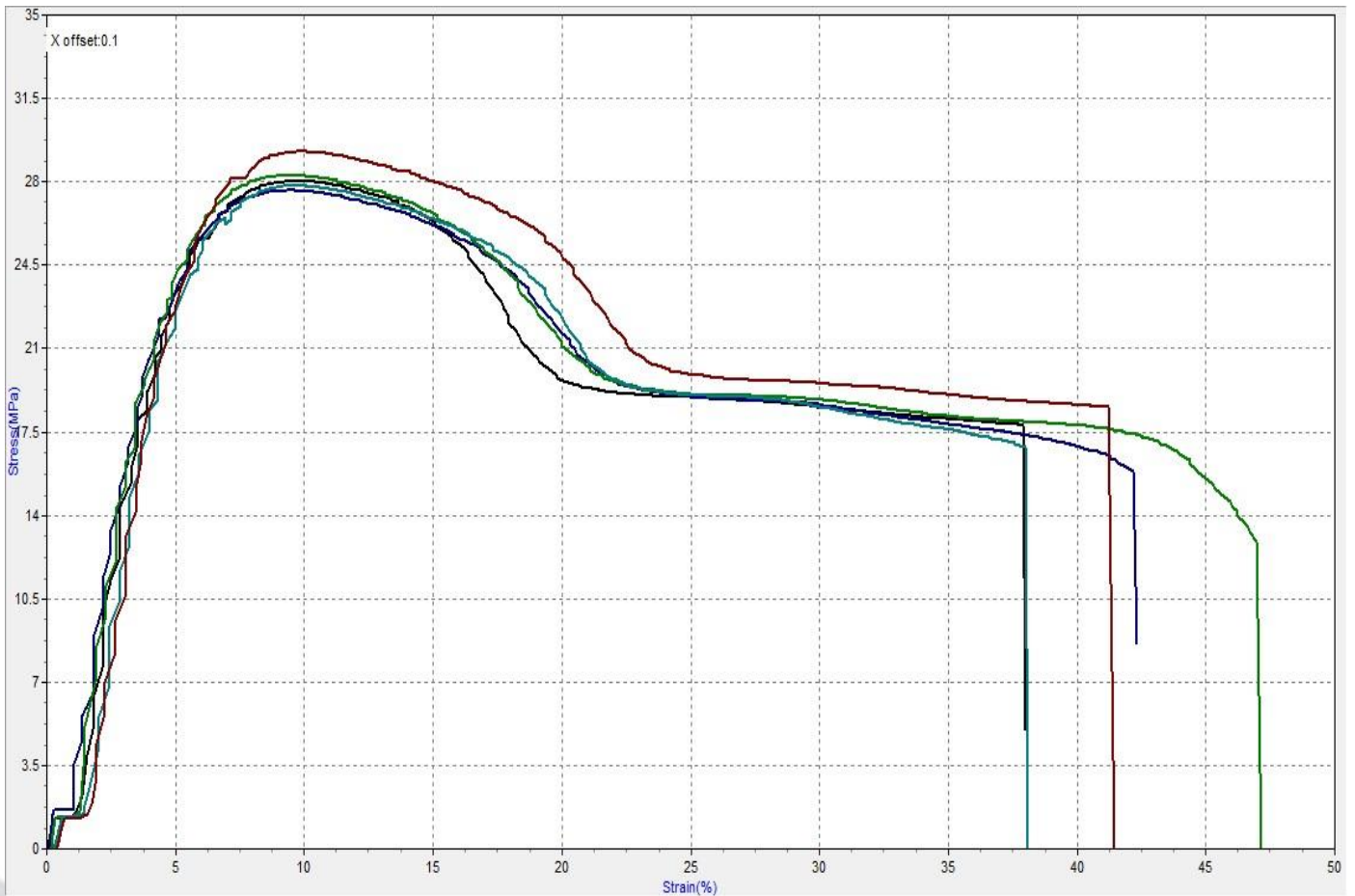


Charpy Notched Impact Strength
3,58 [kJ/m²]

Case Study Report

Up-Cycled xxx PP with Graft Polymer Modifier

Property	Yield Strength [Mpa]	Yield Strain [%]	Break Stress [%]	Break Strain [%]
Value	28,01	9,76	15,23	42,26



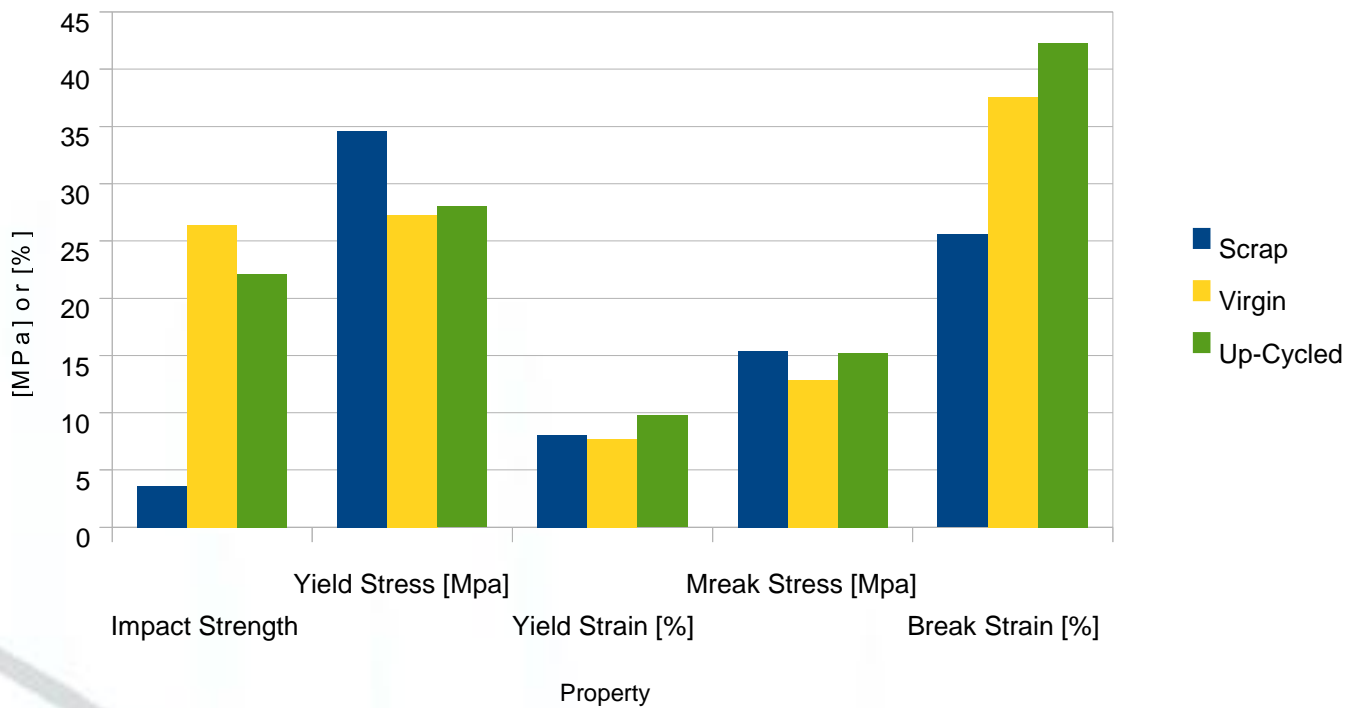
Charpy Notched Impact Strength
22,1 [kJ/m²]

Case Study Report

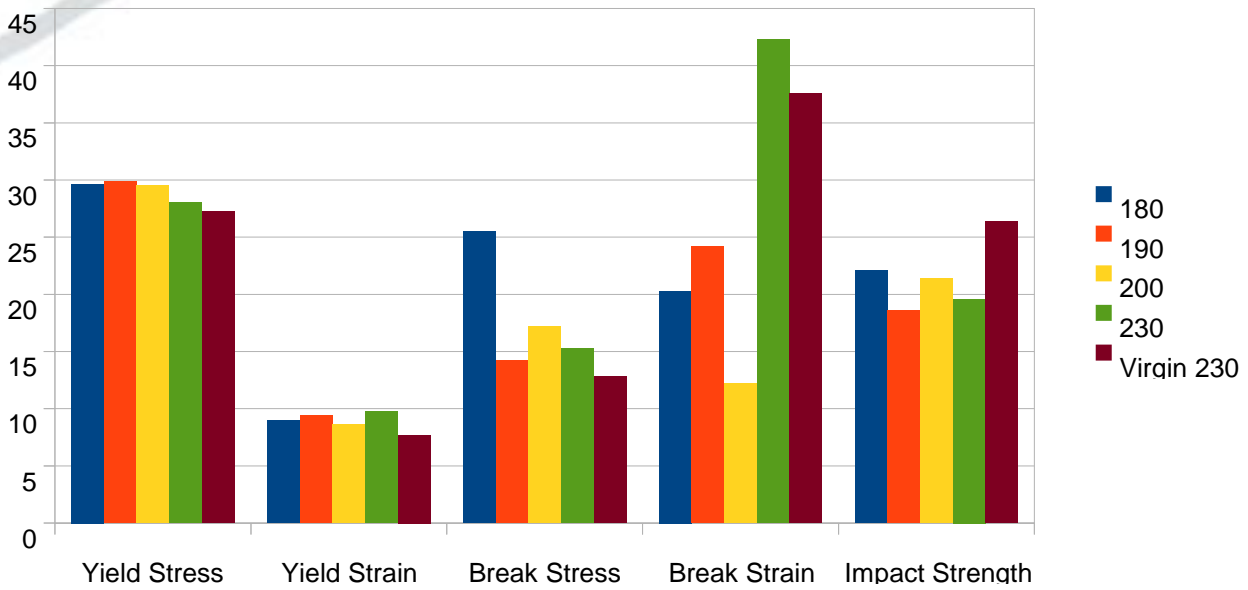
RESULTS COMPARISON

Material	Charpy Notched Impact Strength [kJ/m ²]	Yield Stress [Mpa]	Yield Strain [Mpa]	Break Stress [Mpa]	Break Strain [MPa]
Virgin	26,4	27,2	7,7	12,9	37,6
Scrap	3,58	34,6	8,08	15,4	25,6
Up-Cycled	22,1	28	9,76	15,2	42,3

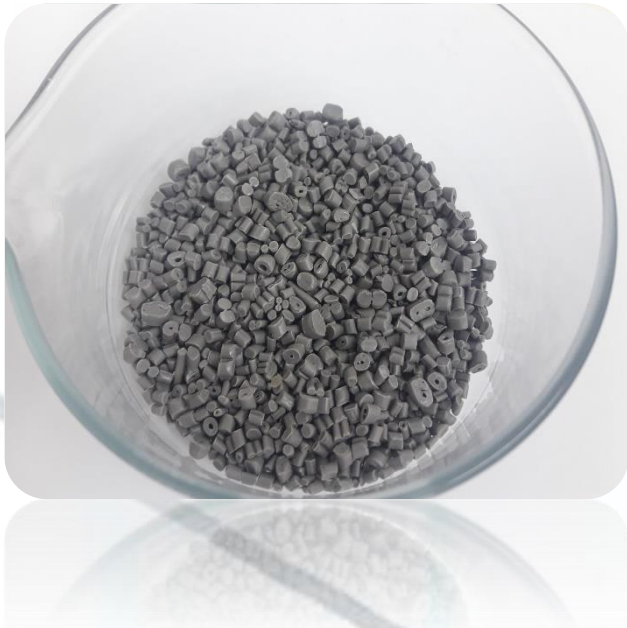
Comparison of materials



PROPERTY OF THE UP-CYCLED MATERIAL AT DIFFERENT TEMPERATURES



Granules received from Up-Cycled material



Samples received from Up-Cycled material

