

CLAIMS

What is claimed is –

1. A method of recycling a plastic waste comprising:

5 (a) feeding a quantity of PET and PVC-containing reclaimer flake reject separated from said plastic waste to a chemical recycling facility; and

(b) depolymerizing in said chemical recycling facility at least a portion of said PET- and PVC-containing reclaimer flake reject.

10 2. The method of claim 1, wherein said flake reject comprises at least 1 weight percent of PVC on a dry basis.

3. The method of claims 1 or 2, wherein said flake reject comprises at least 0.1 weight percent PET on a dry basis.

15 4. The method of claims 1 or 2, wherein said flake reject comprises at least 0.1 weight percent and/or not more than 20 weight percent polyolefins on a dry basis.

20 5. The method of claims 1 or 2, further comprising feeding at least a portion of said flake reject into at least one density separation stage before said depolymerizing (b), in which a PET-enriched stream and a polyolefins-enriched stream are produced from a waste plastic stream comprising said flake reject.

25 6. The method of claim 5, further comprising feeding at least a portion of said PET-enriched stream into a solvolysis facility.

7. The method of claim 5, further comprising feeding at least a portion of said polyolefins-enriched stream into a partial oxidation (POX) gasifier.

30 8. The method of claim 5, further comprising feeding at least a portion of said polyolefins-enriched stream into a pyrolysis facility.

9. The method of claim 5, further comprising feeding at least a portion of said polyolefins-enriched stream into an energy recovery facility.

5 10. The method of claims 1 or 2, further comprising feeding at least a portion of said flake reject into a mechanical dewatering apparatus before said depolymerizing (b).

 11. The method of claim 10, wherein said flake reject is fed into a thermal dryer after said mechanical dewatering apparatus.

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 12. The method of claims 1 or 2, wherein said flake reject is fed directly into a solvolysis facility within said chemical recycling facility.

 13. The method of claim 13, wherein a caustic component or caustic solution is introduced along with said flake reject to a dissolver and/or a solvolysis reactor within said solvolysis facility.

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 14. The use of PET and PVC-containing reclaimer flake reject as a feedstock to a chemical recycling facility.

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