

Polypropylene (beta Scorecard)

Plastics Scorecard (v.1.0 beta) -- Polypropylene

Maximum Attainable Grade:[†] A-

Grade Range: F to A-

Comments:

The major variables affecting polypropylene's grade range are: post-consumer content, additives and catalysts. With the use of safer additives and catalysts, and higher levels of post-consumer recycled polypropylene content, polypropylene could attain Grade A-.

Life Cycle Stage	Attribute	Grade	Comments
1 Feedstock Production			
	1.a Pesticide Use	not applicable	
	1.b GMO Use	not applicable	
	1.c Sustainable Agriculture Practices	not applicable	
	1.d Post-Consumer Recycled (PCR) Content (<i>fossil fuels only</i>)	C- to A-	Grade depends on % PCR content in product. Increased PCR content lowers fossil fuel impact and improves the Grade.
Grade range for Feedstock Production:* C- to A-			
2 Manufacturing			
	2.a Primary + Intermediate Chemicals	A+	Propylene = Green Screen yellow chemical
	2.b Monomer	A+	Propylene = Green Screen yellow chemical
	2.c Catalysts	C- to A+	Grade depends on catalysts used
	2.d Additives	F to A+	Grade depends on additives used
	2.e Nanomaterials	C- to A+	Depends on whether nanomaterials are used in the product
Grade range for Manufacturing:* F to A-			
3 Use and End of Life			
	3.a Chemical Releases & Breakdown Byproducts	F to A+	Potential chemical releases and breakdown byproducts are product dependent, depending especially on additives and catalysts.
	3.b Single Use Biobased Plastic Products	not applicable	
Grade range for Use and End of Life:* F to A+			

[†]The "maximum attainable grade" for a plastic is determined by the lowest grade it receives for any single attribute.

*The "best possible grade" for a stage is determined by the lowest grade attainable for any criterion for that stage.

It is important to note that these are draft assessments, since they are based on a beta version of the Scorecard and are likely to change with the finalization of v.1.0.