

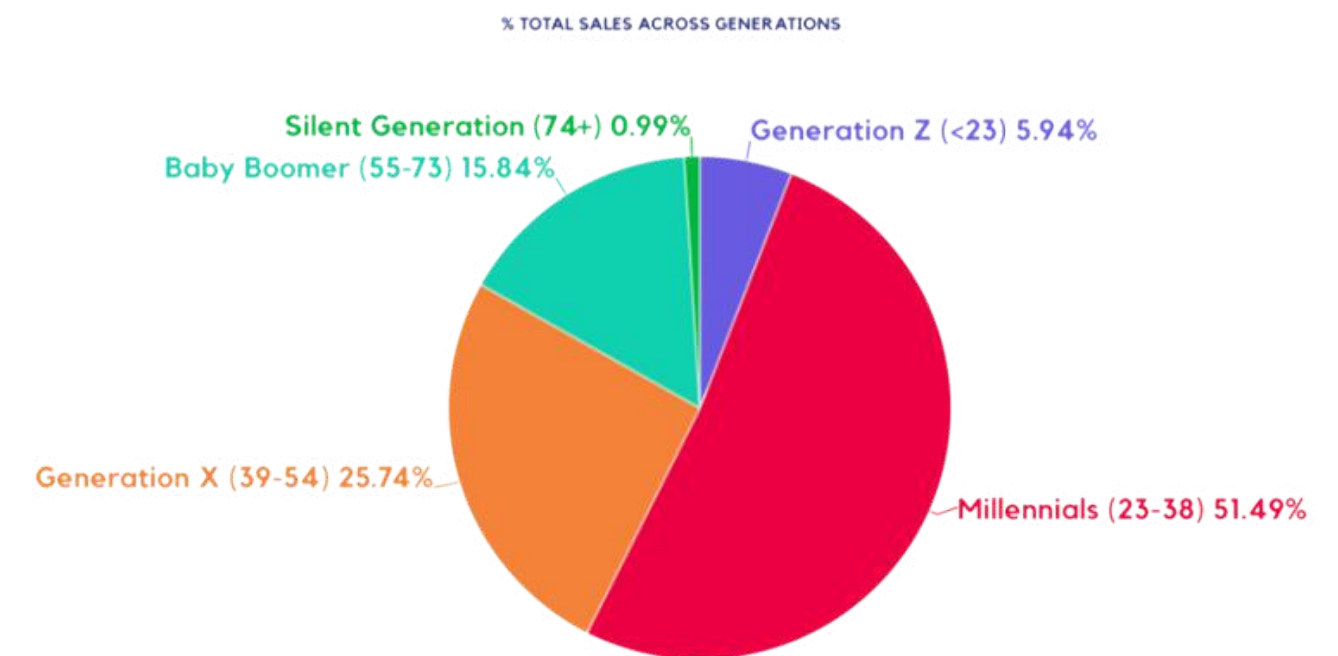
HCM01-116 Pre-Roll Containers

Sustainable Packaging Solutions
for the Regulated Cannabis Industry



The Cannabis Industry is Frustrated with a Lack of Truly Sustainable Alternatives to Plastic

- It is estimated that the cannabis industry is: "responsible for more than 1 billion units of plastic waste every year."
- Many traditional pre-roll tubes either cannot be recycled due to polystyrene, or their slim size makes them fall through collection grates, eluding collection systems.
- PCR and PP polyblends still utilize non-renewable resources, and further contribute to plastic pollution despite their augmented sustainability goals.
- Many plant-based, bio-based materials perform poorly compared to their plastic counterparts in terms of quality, content freshness, and affordability.
- 77.2% of active cannabis consumers (Millennials and Gen X) care "much to very much" about environmental concerns and sustainability in brands they choose to support (See fig. 1 by Headset).



On average, each piece of plastic costs

community litter clean-ups \$0.30 per piece to collect, amounting to over \$11 billion in state funding towards pollution clean-ups each year in the US alone.



Only 1 in 1,800

single-use plastic disposables are recycled appropriately.



Changing the Packaging Norm

How HCM01 Pre-Roll Tubes are Uprooting
Plastic in the Cannabis World

HCM01-116 Value Proposition

- Made from renewable, pre-certified compostable materials
- Rivals plastic quality and performance without the environmental pitfalls
- "HCM01" and CR Certification identification mark on bottom
- Distinguishable surface texture to stand out from plastic on the shelf
- Uniquely heat tolerant and extended 18 month shelf life
- Fully compostable into usable compost
- Designed for the full-circle packaging waste economy
- Product-market fit & designated affordability
- 100% manufactured in the USA



A Blend of Sustainability and Performance

- Unique blend of biomaterials to achieve home compostability in as little as 180 days*
- Natural material composition ability to entirely decompose in natural settings or landfills (degradation, not fragmentation)
- Parallel combination of strength, durability, and pliability to traditional plastics for optimal user-friendliness & familiarity
- High heat tolerance of 150°F+ and extended shelf life up to 18 months*
- Distinctive surface texture to help brands stand out on the shelf and resonate with eco-savvy consumers

*For best results: active pile turnover, light moisture, and balanced green-brown compost ratio is required

*Untested; best current estimate with ongoing testing for shelf life longevity

Material

Conventional Packaging:

Current pre-roll container packaging is inherently non-renewable, rarely recycled despite modern pushes in recycling collection infrastructure, and unfavored by consumers in purchasing decisions when presented a sustainable alternative option.

HCM01-116

Made from renewable resources, recyclable #7 for composting industrially or at home, and designed for the circular packaging economy of Deposit Return Systems (DRS) for reusability or diversion to internal/external compost systems.

Use-Life

Conventional Packaging:

Traditional plastics such as PP or polystyrene can take over 400+ years to disintegrate in landfills, break down into microplastics that enter society's food sources via oceanic pollution, and have no to little cannabis-packaging designated collection programs.

HCM01-116

HCM01-116 pre-roll containers are designed to decompose in home composting systems in as little as 180 days. Current industrial facility testing has shown less than 20% of the containers remain after a 49 day in-windrow vessel test. Our containers break down into usable compost as opposed to fragmented microplastic contamination.

Performance

Conventional Packaging:

Traditional plastic pre-roll containers have set the benchmark for quality performance in which all other (bio)materials must parallel or rival in order to achieve consideration for packaging replacements, with child-resistance and content freshness a priority.

HCM01-116

HCM01's uniquely blended material composition enables our containers to compete with plastic performance in a rare biomaterial combination of strength, rigidity, and pliability. HCM01-116 is certified child resistant with a snap-lock, air-tight lid.

Disposal

Conventional Packaging:

Pre-roll containers made from polystyrene are irrecyclable. PCR and PP containers often elude the collection grates due to their small size, and have achieved a recyclability rate on par with total SUPs of 0.0055% of total circulating supply. Some collection programs exist for cannabis consumers to return packaging for regrind.

HCM01-116

Is designed to achieve full compostability into usable compost via home or industrial composting. HCM01 containers have the capacity to fully decompose in landfill conditions given active microbial content and heat within an adequate amount of time. HCM01-116 containers are intended for DRS collection, reuse & composting programs.

Brand & Environmental Benefits

- Non-toxic and infinitely renewable for an internally responsible, circular packaging economy
- Mitigates landfill space allocation towards a high-volume packaging item over a 12-24 month period
- Distinct texture to differentiate packaging from plastics and drive purpose-based retention through sustainability initiatives
- Contributes to corporate ESGs and overall customer satisfaction
- Reduces reliance on and consumption of conventional plastics
- Every pound of HCM01 containers reduces 2.7 lbs. of carbon emissions as opposed to plastics



Your Brand, Your Way

- Available in natural resin off-white or flat matte black
- Universal custom coloring to exact formula matches
- All colorant is made from custom formulated, biodegradable-based ink
- Maintains usability, biodegradable and compostable properties
- Maximum of \$0.011 per unit more than natural resin color
- Low MOQ of 45,000 units



Freight & Shipping Information

- Case size: 1,000 units
- Case Weight: 26.6 lbs.
- Case Dimensions: 32 x 9 x 20.5 in
- Pallet Spec: 5 Ti x 3 Hi
- Pallet Weight: 426 lbs.



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- Case cbm: 3.1467
 - 40' HC Container Capacity: 889,000 units (non-p)
 - 40' Container Capacity: 796,000 units (non-p)
 - FOB Albany, OR
 - Freight rebates starting at 300,000 units

Celise BioProducts

Contact your Celise BioProducts representative, distribution supplier, or directly online to make the sustainable packaging switch as seamless as possible.

www.celisebioproducts.com

contact@celisebioproducts.com

Key Terminology

- Compostable

The controlled decomposition and recycling of organic material into usable, nutrient-rich compost for crop or matter regeneration. For compostable products: the ability to break down entirely into usable compost within an adequate timeframe, usually less than six to twelve months.

- Biodegradable

Capable of being decomposed by bacteria and other living organisms in less than 12 months. FTC green guidelines state: "Items destined for landfills, incinerators, or recycling facilities will not degrade within a year, so unqualified biodegradable claims for them shouldn't be made."

- Decomposition

Decomposition is the process in which organic-based matter is broken down into simpler organic or inorganic matter. Having the ability to decompose.

- Disintegration

The fragmentation into small parts of an item, typically as the result of impact or decay. Many plastics disintegrate over extended periods of time, turning into microscopic particles that we can breathe or consume.

- Renewable

Made from readily-renewable resources that otherwise can be regenerated time and time again. fossil fuel-based materials are non-renewable, and FTC guidelines state recyclability is not a parallel with renewable materials.