G-1 Health Care One-Piece Open Ostomy Bag (Adult) – South Africa Optimised Design Concept

Professional Redrawn Engineering & Clinical Design Brief

This document provides an English-language redesign brief derived from the original product structure drawing. The proposed modifications are intended as clinical design recommendations and marketing/engineering concepts rather than validated clinical claims. Final dimensions and performance characteristics require formal usability testing, regulatory review and prospective evaluation.

Core Product Specification

Component	Specification
Product Type	One-Piece Open Ostomy Bag (Adult)
Baseplate	Hydrocolloid adhesive barrier
Outer Layer	Skin-coloured non-woven fabric
Odour Control	Activated carbon filter
Closure	Open drainable outlet
Target Market	Adult ostomy patients

South Africa Optimised Design Features

Wider Hydrocolloid Footprint: Improves adhesion on uneven abdominal contours and may improve wear time in active patients.

Enhanced Flexible Non■woven Border: Improves comfort in hot climates and reduces edge lifting during daily activity.

Extended Drain Outlet: Facilitates easier emptying and cleaning for patients with reduced dexterity.

Improved Carbon Filter Position: Designed to improve gas venting and reduce ballooning.

Neutral Skin-Tone Fabric: Provides discreet appearance across a broad range of clothing styles.

Reinforced Coupling Area: Additional support around high-stress zones may improve durability.

Clinical Design Rationale

Based on anecdotal observations from a practising surgeon with more than a decade of experience in South African public-sector and tertiary-care settings, common considerations include variable body habitus, delayed access to specialist stoma care, warm climate conditions, physically demanding occupations and the need for reliable wear time. These observations informed the proposed design adaptations described above.

Important Regulatory Statement

The benefits listed in this document are design hypotheses and intended-use considerations. They should not be presented as proven clinical outcomes unless supported by formal human-factors studies, clinical trials, post-market surveillance data or regulatory-approved evidence.