



The next generation of trust.

Hart Secure Ballot Stock

Specification

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1 INTRODUCTION

1.1 What is the purpose of this document?

Describes the ballot stock for ballot production to be used with Hart products

2 HIGH SECURITY + HIGH PERFORMANCE = BETTER ELECTIONS

To promote election security, and for optimal performance of the Hart Voting System (HVS), Hart InterCivic recommends that all ballots be printed on Hart InterCivic Secure Ballot Stock.

Hart's Secure Ballot Stock was specifically designed for use with Hart's digital printing software and digital scanners. The stock includes an exclusive combination of a proprietary mill watermark, smooth high-contrast paper and toner adhesion qualities that produce a high image quality and more successful ballot scanning.

The "Official Ballot" watermark is embedded into the paper fibers during the paper making process provides clarity that cannot be duplicated by any other method. Secure Ballot Stock is available exclusively from Hart InterCivic, and is sold only to Hart's customers or preferred printers, to prevent unauthorized ballot replication.

Security - A secure high-grade paper with a unique watermark impression, specifically formulated for the needs of professional election administrators.

Integrity - Enables election administrators to demonstrate their commitment to election integrity and to protect against fraudulent reproduction or alteration of ballots

Voter Confidence - Ballots inherently display exceptional quality and security to gain the confidence and trust of the general public

Flexibility - An easy way to introduce security into print production, allowing local print partners to retain control over their own procedures

Performance - Provides superior image quality and scanning performance when used with Hart's voting systems

Election-specific features

- Customized watermark impression for security
- Strong weight for durability
- Ultra-smooth finish for best image quality
- Optimized grain direction for folded ballots

3 SPECIFICATIONS

Basis Weight: 28# Bond

Finish: Smooth Xerography

Sheffield: 100-120

Brightness: 91-94

Content: Virgin wood fiber, no recycled content

Florescent level: 4%

Moisture content: 4.5%

Packaging: Moisture resistant ream wrap

Trim: +/- 0.025"

Squareness: +/- 0.0075"

Security features - Trademarked original dandy roll watermark "Official Ballot," random repeat, readable in any orientation

Sizes (inches) - 8.5 x 11; 8.5 x 14; 8.5 x 17; 11 x 17; 19.75" rolls

Grade bond: #1 - Number one grade paper is produced with 100% cellulose fibers. The process of creating a #1 grade bond paper removes all impurities from the fibers which can affect the appearance and performance of the paper. The smoother digital and bond grade papers provide the best image quality.

Basis Weight: 28 # Bond - Paper weight is expressed in terms of basis weight, which is the weight of 500 sheets of a particular size. The 28 # is created with a thickness to allow enough flexibility without additional curl. Lower basis weight papers tend to have a smoother finish.

Finish: Smooth Xerography - The finish is the smoothness of the contour of the paper. Toner is fused to paper by a combination of heat and pressure. Smoothness levels are required to prevent image graininess and achieve acceptable toner adhesion results.

Sheffield: 100 – 120 - The smoothness of paper is determined by the Sheffield rating system. The smooth digital and bond grade papers provide the best image quality in digital printing applications.

Brightness: 91 – 94 - Brightness is a measure of the amount of light of a specific wavelength, a sheet reflects. The more light it reflects, the higher the brightness. Brightness has no bearing on the performance of the paper but does have a significant impact on image quality.

Content: The virgin wood fiber contains no recycled contents. This ensures impurities are removed from the paper which affects the smoothness, moisture content and image quality.

Florescent level: 4% - Florescent whitening agents to improve paper quality in terms of appearance. The florescent level enhances the visual appearance of the sheet and printed product. The whitening agents are essential in creating high quality white paper.

Moisture Content: 4.5% - Almost all grade of paper has some percentage of moisture. The 4.5 % moisture content is the industry average while some grades of paper have much higher moisture content. A 1% variation of 4.5% can cause problems. The physical properties of the paper undergo change as a result of variations in moisture content. The moisture content of paper can affect its printability, performance and strength. Paper with high moisture contents tend to cause problems with post fuser curl, while papers with low moisture contents have a tendency to experience static which causes problems with feeding and post print operations.

Packaging: The moisture resistant ream wrap ensures the proper moisture level of the paper is maintained.

Trim: +/- .025" - Allowable tolerance for trimming to specific sheet sizes.

Squareness: +/- .0075" - Allowable tolerance for squareness of the sheet. A simple example of squareness is folding a paper sheet in half and having the corners meet exactly.