

R I M A G E<sup>®</sup>  
M E D I A S U P P L I E S

# Media Guide

*Your Guide to Choosing  
the Best Media*

# GET THE RIGHT MEDIA

That Fits Perfectly for  
Your Business



Rimage Media offers a broad range of brands for professional users, designed to match a variety of business and industry requirements. Our product mix covers the needs of the professional and demanding applications in the duplication industry, corporate, archiving and medical sectors.

## **Rimage Professional Media**

For use with Rimage Everest®, Inkjet, and Prism™ printers, Rimage Professional Media offers high quality at value prices without compromising reliability and performance. It is the best solution for storing movies, broadcasts, digital images, personal videos and important data, and is available in a range of print surfaces.

## **Rimage Professional Premium Media**

Rimage Professional Premium Media offers the best-in-class performance for professional, archival storage, ideal for use with Rimage Everest Printers. Rimage Professional Premium discs are the highest grade media designed and manufactured to Rimage's strict quality specifications using premium grade materials for maximum longevity and consistent, repeatable performance. This is the very best media available on the market, ideal for those with stringent quality requirements.

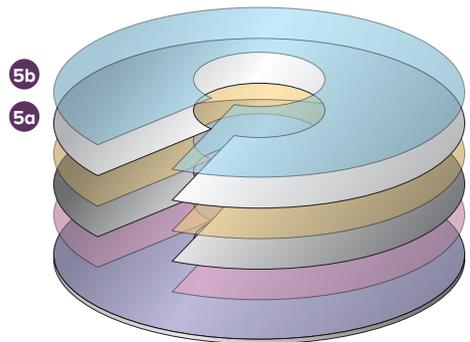
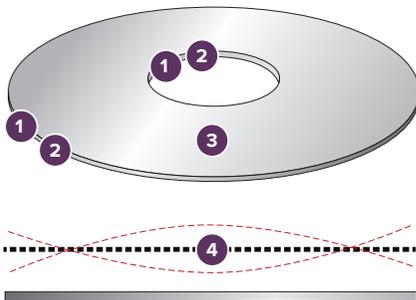
# Media Quality is Critical for Robotics Systems

An optical disc that works well when hand placed in a single recorder or printer can malfunction in a robotic system, leading to system errors and faulty output. Rimage media adheres to all applicable book specifications, as well as Rimage-specific requirements, to be qualified for use with Rimage systems. Rimage only provides media guaranteed to ensure the smooth operation of robotic disc publishing systems.

Disc Type	Capacity
CD-R	700 MB
DVD-R	4.7 GB
DVD+R Dual Layer	8.5 GB
Blu-ray™ (BD-R) Single Layer	25 GB
Blu-ray™ (BD-R) Dual Layer	50 GB

- 1 All discs must have flat edges (90°), with no rounding or imperfections. Discs with imperfect edge profiles are difficult to pick from a bin and difficult to clamp.
- 2 Outer edges of the disc must have adequate adhesive. Discs with imperfect outer edges will often split or separate when clamping pins secure them in a robotic printer.
- 3 Discs must be manufactured with precise and even weight distribution so that the disc is balanced and will spin smoothly without vibration.
- 4 Discs must adhere to flatness requirements. Discs that are not flat will often fail to clamp, and in severe cases will not properly record.
- 5 Discs must have coatings specific to the print technology used.
  - a) Inkjet discs must have a coating that receives ink well but will not bleed or smear easily. Thermal discs need a thermal printable ink layer to protect the data layer from heat generated by the printer. For both of these disc types, a printable layer is used.
  - b) Thermal retransfer discs need the most robust coating to protect data from the high heat levels of the retransfer print engine. For these discs, an additional clear layer is used.

## Physical Features of Rimage Media



- Clear Top Coat
- Printable (white) Coat
- Clear Lacquer Sealant
- Reflective Layer (silver or gold)
- Dye Layer
- CD Clear Polycarbonate

# Rimage Media Testing

Media must pass extensive testing in order to receive the Rimage Stamp of Approval. Recording integrity, print quality, and robotic interaction are all examined over multiple media lots to ensure top performance.

Rimage employs proprietary, critical-to-quality performance specifications that go beyond standard testing for optical media. As a result, all Rimage Media meets or exceeds all applicable specifications for optical media.



*The **Rimage Stamp of Approval** takes the guesswork out of choosing media for your digital publishing needs. Rimage has done the work to source and approve a variety of professional media at the highest quality levels. Additionally, the Rimage Stamp of Approval ensures all media has been tested to consistently perform as expected, and is backed by the Rimage Media Warranty.*

## PHASE 1: Preliminary Assessment

1 Week: 25-50 discs reviewed

### Physical Testing

- Visual Appearance

### Recording Testing

- Recording Quality

### Print Testing

- Print Performance
  - Printed Edge Quality
  - Retransfer Performance
  - Overall Print Quality

## PHASE 2: Initial Evaluation

3 Weeks: 400-500 discs reviewed

### Physical Testing

- Visual Appearance
- Media Pick Testing
- Printer Clamp Testing

### Recording Testing

- Size of Burn
- Complete Burn
- Compatibility
- Verification Testing
- System Throughput
- Recording Quality Analysis

### Print Testing

- Print Performance
  - Printed Edge Quality
  - Retransfer Performance
  - Overall Print Quality
- Data Integrity Testing
- Durability

## PHASE 3: Final Qualification

3 Weeks: 2,500-3,000 discs reviewed

### Physical Testing

- Visual Appearance
- Media Pick Testing
- Printer Clamp Testing

### Recording Testing

- Size of Burn
- Complete Burn
- Compatibility
- Verification Testing
- Recording Speed
- System Throughput
- Recording Quality Analysis
  - Angular Deviation of Substrate Reference Plane
  - Angular Deviation of Reflected Beam In Radial Direction
  - Eccentricity of Track Radius
  - Radial Noise
  - Reflectivity of Blank Disc
  - Recording Error Rates
    - CD (BLER)
    - DVD (PISum8)
    - Blu-ray (RSER)
  - Pit and Land Jitter
  - 13R, I11R
  - Radial and Vertical Acceleration Max

### Print Testing

- Print Performance
  - Printed Edge Quality
  - Retransfer Performance
  - Overall Print Quality
- Data Integrity Testing
- Durability



# Archival Lifespan

*Based on ISO 16963:2015 specifications for optical media longevity, the projected archival lifespan of Rimage Media is:*

**CD-R:** 100 years

**DVD:** 30 years

**Blu-ray Disc™:** More than 100 years



## How Optical Media Lifespan is Determined

The Arrhenius Reaction Rate Model is used to project the degradation of performance in optical media through the use of heat- and humidity-induced accelerated aging. The test method includes:

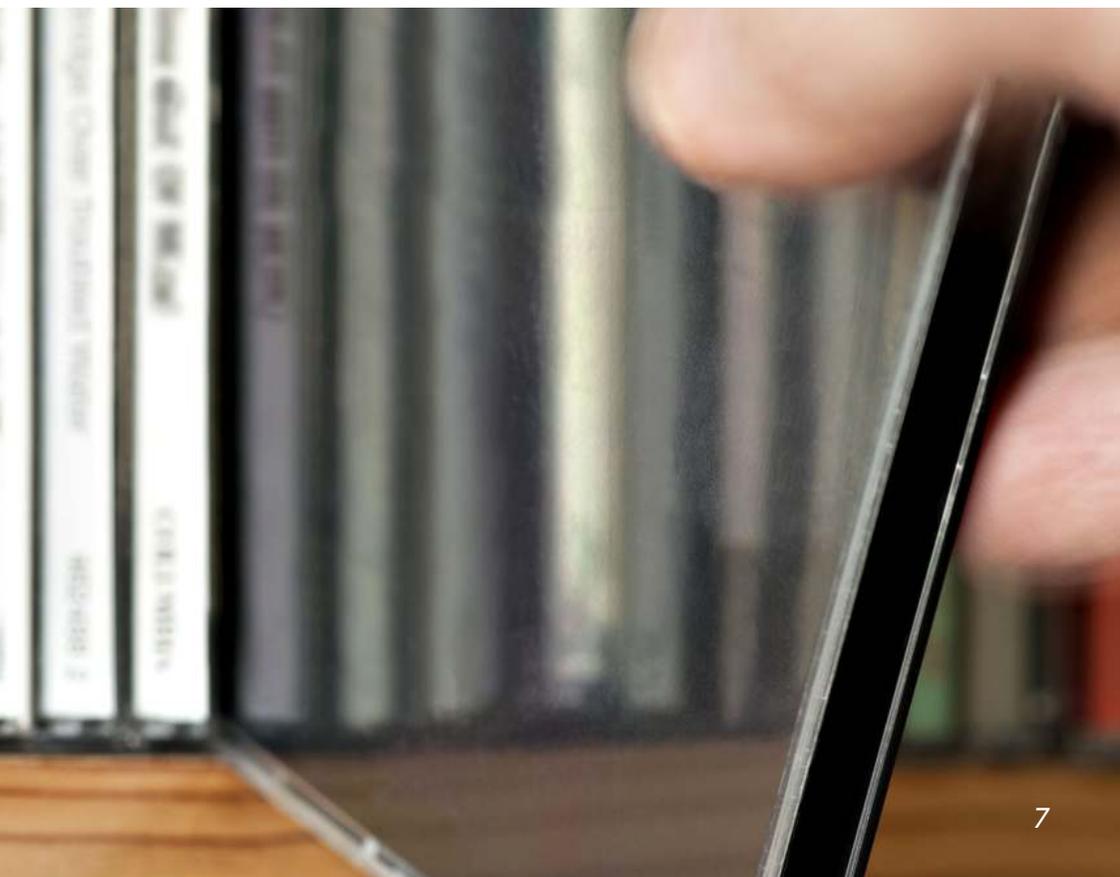
1. Data is recorded in a clean laboratory environment, and the Maximum Error Rate (MER) is measured.
2. The media is placed in a climate-controlled environment at temperatures of 90°C (194°F), 80°C (176°F), and 70°C (158°F), and humidity of 85% RH.
3. Media is periodically removed from the storage environment to test the MER. When the MER exceeds the specification limit for the media format, the media is considered to have reached end-of-life at that particular temperature.
4. The collected data is then used to project the media's archival lifespan in a typical office environment.

***Rimage Media is tested in accordance with ISO 16963 Standards.***

# Recommended Media Storage Conditions

The National Institute of Standards & Technology (NIST) recommends the following conditions for optimal media life:

- Usage of a high-quality recorder without any performance problem.
- Air must be free of corrosive gases.
- Media surface must be free of scratches and fingerprints.
- Archival room's temperature should be between 20°C and 25°C.
- Archival room's humidity should be kept below 60% RH.
- Media must be stored vertically and in a jewel case.
- Media should be kept in the dark and not exposed to sunlight.



# R I M A G E®

## **Rimage Corporation**

7725 Washington Avenue South  
Minneapolis, MN 55439 USA

Toll Free +1.800.445.8288

## **Rimage Europe GmbH**

Albert-Einstein-Strasse 26  
63128 Dietzenbach, GERMANY

Tel +49 (0)6074.8521.0

## **Rimage Japan Co., Ltd.**

4F Arai #38 Bldg.,  
2-7-1 Hamamatsu-cho,  
Minato-ku, Tokyo 105-0013 JAPAN

Tel +81.3.6452.8780

## **Rimage Taiwan**

2F-7, No. 508, Sec. 5,  
Zhongxiao East Road., Xinyi Dist.,  
Taipei City 110, TAIWAN

Tel +886.2.2726.0100

## **Rimage Information Technology (Shanghai) Co., Ltd.**

RM # 206, 207, 2F  
No.1 FuXing Zhong Road  
HuangPu District  
Shanghai, 200025 CHINA

Tel +86.021.5887.8905

© 2017 Rimage Corporation. All rights reserved. BR012-1017

Rimage® is a registered trademark of the Rimage Corporation. Blu-ray™ is a trademark of the Blu-ray Disc Association. All other trademarks and registered trademarks are the property of their respective owners and are used without intention of infringement.