

TECHNICAL INFORMATION
LASER MARKING PRODUCT

CerMark™



RD-6018 Black Laser Marking Tape

1.0 Product description

RD-6018 is a laser marking tape designed for use on glass, ceramic, ceramic like and porcelain substrates. RD-6018 will also produce marks on stainless steel. RD-6018 can be taped to a substrate, laser marked to bond a portion of it to the material and then peeled away to leave the mark. RD-6018 is designed for use in applications where spraying and removing our other laser marking materials is not possible or feasible. RD-6018 is available in sheet form (approximately 3" by 6") or in roll form. Rolls are 1" and 4" wide, 50 feet per roll, wound on a standard 3" core.

2.0 Product characteristics

2.1 Physical Properties	
Appearance	Dark black adhesive tape with a white paper backing, sheets or rolls.
2.2 Strengths of Product	
Raises the contrast of laser marks on glass and ceramic substrates. Allows Nd:YAG, and CO ₂ lasers to mark substrates such as glass, porcelain and stainless steel with a dark black. Easy to handle and use. Eliminates variation in application, requires no application equipment. Significantly reduces post marking clean up.	
2.3 Recommended Application / Removal Techniques	
Application Methods	Apply RD-6018 to substrate and smooth out by hand, ensure that no air bubbles or gaps occur between tape and substrate. Moderate pressure should insure good adhesion. RD-6018 may also be applied by automated labeling machines.
Application Notes	Clean the surface of substrate so that it is free of any lubricants or oils. RD-6018 must adhere well to the substrate to ensure a consistent mark.
Removal Methods	Remove tape by peeling from surface. Some burned paper residue may need to be wiped clean. A cloth can be used to with water or ethanol. Some cut out portions of tape may also need removed, depending on the mark.
2.4 Laser Marking of Product	
Laser Marking Method	CO2 or YAG laser
Recommended Starting Point for Settings	CO2: 30-50% power (35 watt laser) 10-25% speed 500 DPI / 500 PPI YAG- 10-20 watts 10-20 inches/sec speed

2.6 Additional Application Notes

For optimum mark quality, good adhesion and contact between the tape and the substrate is necessary. If the tape does not stick well to the substrate or if gaps or air bubbles are trapped between the tape and the substrate, poor mark quality

will result. Use moderate pressure to insure good contact. Use of a squeegee will help insure good contact. Rough or uneven substrates such as porous non-glazed ceramics or bricks will also produce marks of lower resolution due to the roughness of the material

2.7 Marking Notes

Some burning of the paper backing will occur during marking and is normal. We recommend that the marking be done in a well ventilated area. When making large marks or a large number of marks, we recommend a ventilation system to exhaust the smoke from the paper burning to the outside.

Marking may require some trial and error to optimize your laser with a particular substrate. Keep in mind that all lasers react differently depending on the substrate. Best results are obtained when marking at lower powers and slower speeds. High powers tend to damage glass substrates and should be avoided whenever possible. Experimentation should be done to find settings that produce an acceptable mark without glass damage.

3.0 Product Preparation

No preparation is necessary, use RD-6018 tape as supplied.

4.0 Storage Recommendations

Product must be stored in cool and dry conditions. The storage temperatures should not be below 5°C and not exceed 35°C. If stored as recommended, a minimum shelf life of six months after the production date is guaranteed.



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