

Definition of quality standards for vinyl records

GZ Media

Mechanical defects

Stitching

Defect description: This is a visual and acoustic detectable defect. There are reflective silver dots creating visible clusters on the record. The root cause is incorrect unstick of the record from the form on press.

Standard



This is a critical defect that is not acceptable if audible on a record.

Scratches (caused by damaged stamper)

Defect description: A visible scratch on records that occurs constantly in one specific place. The root cause is a damage of the stamper during the pressing.

OK

This defect must not influence the audio quality.
Hairlines and fine lines on the vinyl surface, especially on the non-groove/mirror area. The max. size must not exceed the length of 20mm and the width of 0,5mm .



NOT OK

All scratches influencing the audio quality. Scratches with the length exceeding 20mm and the width exceeding 0,5mm are not acceptable.



Scratches (caused during handling)

Defect description: There are visible clusters of parallel grooves on the record surface. The root cause is unprofessional rough handling.

Risks: Surface scratches are also affected by the used inner sleeve that can have an impact on the mechanical damaged of the vinyl record.

Recommendation: The safest method of protecting the vinyl is packing with a poly-line inner sleeve, then a microtene bag and a polyethylene (PE) bag and a printed inner sleeve with inside lamination (PREMIUM inner sleeve).

The basic form of protection against minor surface marks (which will not affect the quality of the actual music) is packing with (Delga) paper bags.

The most basic form of protection is packing with printed inner sleeves or discobags (fine scratches on the mirrored area and in the recording, releasing of paper residues from the sleeves edges with no influence on the sound quality).

Least suitable material is carton (card board) and art paper which is causing scratches on vinyl records with no influence on the sound quality.

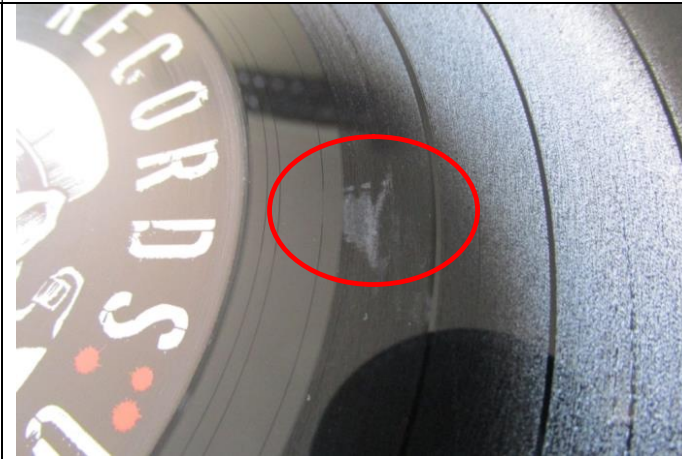
OK

NOT OK

This defect must not influence the audio quality.
Hairlines and fine lines on the vinyl surface, especially on the non-groove/mirror area. The max. size must not exceed the length of 20mm and the width of 0,5mm.



All scratches influencing the audio quality. Scratches with the length exceeding 20mm and the width exceeding 0,5mm are not acceptable.



Warped records

Defect description: The root cause is a high inside tension during the maturity process or a long-term rough storage.

Risks: Non-standard records as records with one label or a double-sided label will always be warped, the limit is max. 5mm. For coloured effects as hazed vinyl, color in color, A side / B side, half / half the probability of warping is extremely high due the different types of compound used, the limit is max. 3mm.

Standard



The warping must not influence the playing of the record and must not exceed 2mm. The warping is measured by a special tool similar to a gramophone. The parameter measured is the difference between lead-in and lead-out grooves height. Other method that can be used is a feeler gauge. The record is put on a flat surface and the deviation from the surface is measured.

Stains and Smudges on records

Defect description: The vinyl material (biscuit) contains extraneous ingredients, most often black material. We distinguish two types of stains/spots – visible dotted stains, mainly black and smudges.

OK

Compact stains: The area of stains not exceeding 0,01% from the total surface and color of which significantly differs from the vinyl color.

Non-compact stains: The area of stains not exceeding 0,5% from the total surface with a touch character or stains with the same color shade but a different intensity.

Evaluation: The reference area is the entire record area including the label. The coverage of stains is calculated as a whole. The total of all stains on one side may not exceed the values stated above.



NOT OK

Compact stains: The area of stains exceeding 0,01% from the total surface.

Non-compact stains: The area of stains/spots exceeding 0,5% from the total surface.



Vinyl colour

Defect description: The vinyl colour does not correspond to the vinyl colour chart.

Colour options:

A: Standard colour chart #1 - #14

B: Standard colour chart P1 – P20

C: Special colours – Colours are mixed up on customer request, samples are subject to customers’ approval. This is a paid service.

Risks: There are specific metallic single coloured records gold, bronze and silver. The pigment composition causes uneven spillage of a colour, especially in the area without recording, resulting in coloured “waves” on a vinyl record – a relief with a different colour shade. This effect doesn’t influence the recording/sound quality (lead-in groove, lead-out groove, mirror). These characteristics cannot be subject to claim.

OK

NOT OK

The max. colour deviation in in the range of one degree of the Pantone Sampler.

The colour deviation exceeding one degree of the Pantone Sampler.



Label defects

Label cut

Defect description: The sheet of paper was shifted during the cutting process. The accepted tolerance is $\pm 2\text{mm}$.

OK

The cut is moved by $\pm 2\text{mm}$ without cutting the label text.



NOT OK

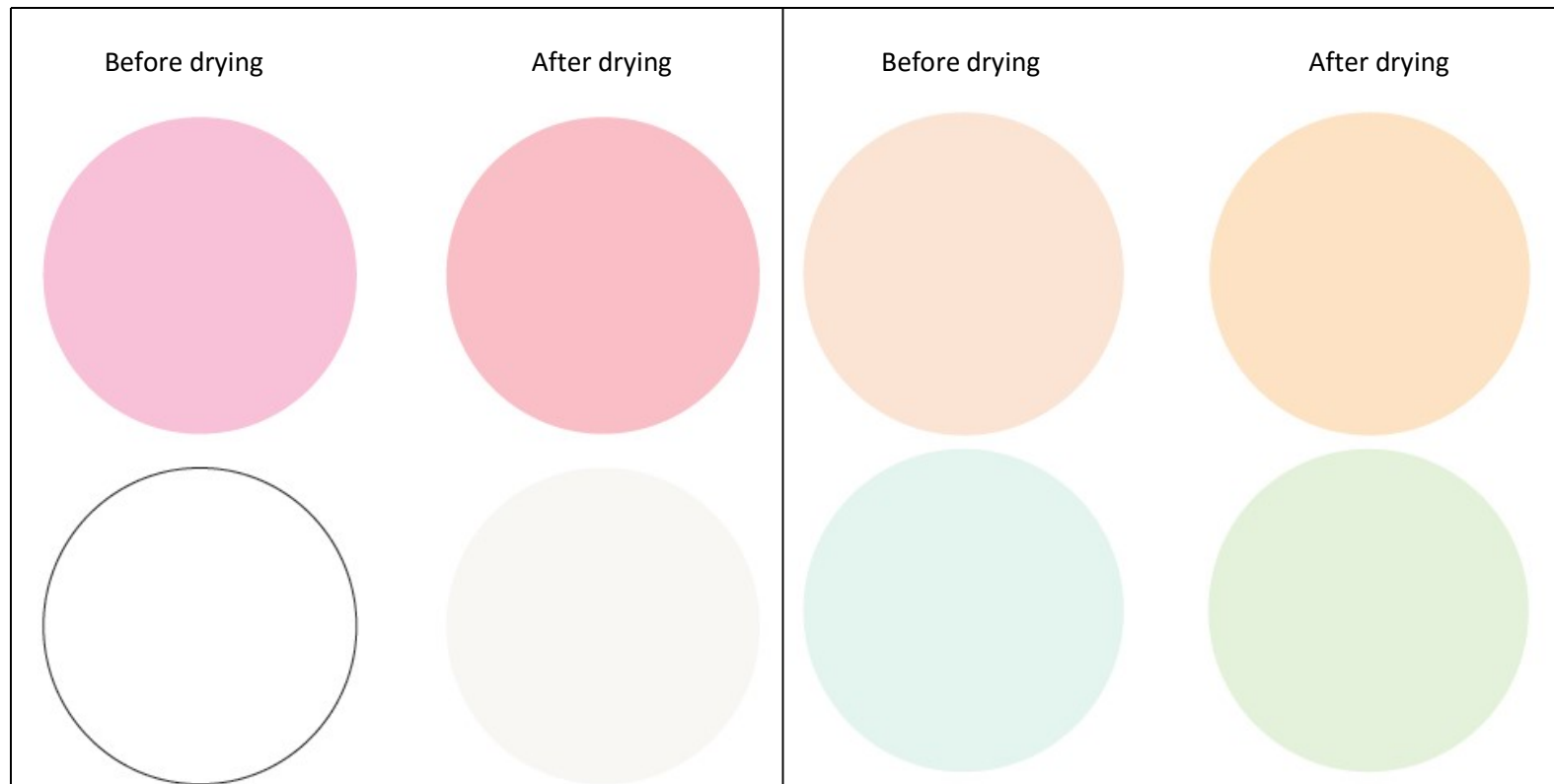
The cut is moved by more than $\pm 2\text{mm}$ or the label text is cut off.



Colour change of labels

Defect description : All labels are subject to a drying process at high temperatures in order to remove the redundant moisture and to prevent from a bubbling of labels during the vinyl pressing. Due to the drying it may happen that labels change the colouring. This effect is more visible on light and PMS colours.

OK (this is not showing all possible variants)



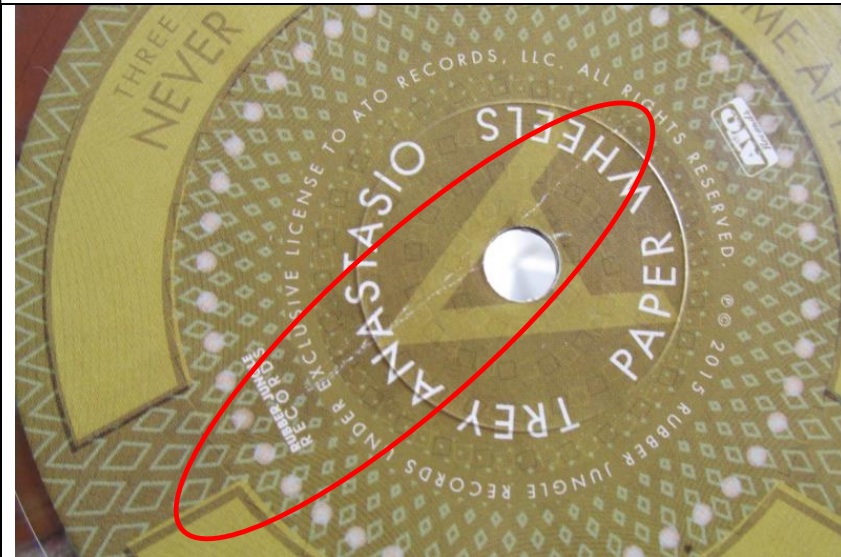
Split/Cracked label

Defect description: The labels cracks during the pressing and label parts are shifted.

Risks: Cracked labels occur mostly on multi-coloured records as half/half, tri-coloured, splatters/haze, colour in colour or Aside/Bside. The unpredictable paper tension during pressing is causing cracks or label folding due to use of different compound with different mechanical properties during pressing.

OK

Hairlines splits, mainly on coloured records, the text is still legible.



NOT OK

The vinyl material is visible through the label split.
The labels text is illegible.

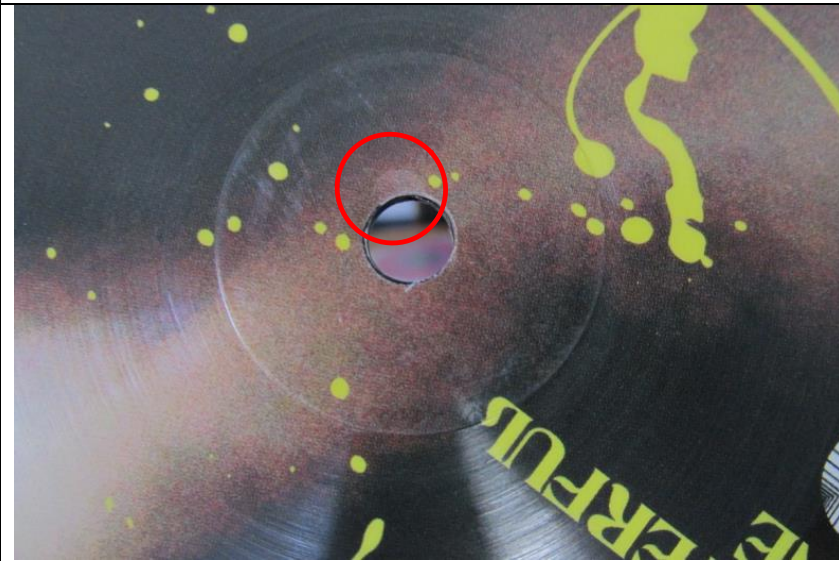


Blisters on labels – Picture disc

Defect description: Insufficiently dried colour becomes plastic on the hot stamper surface and stick on the stamper. When opening the pressing machine the colour is torn off or splitting the paper layers resulting in blisters.

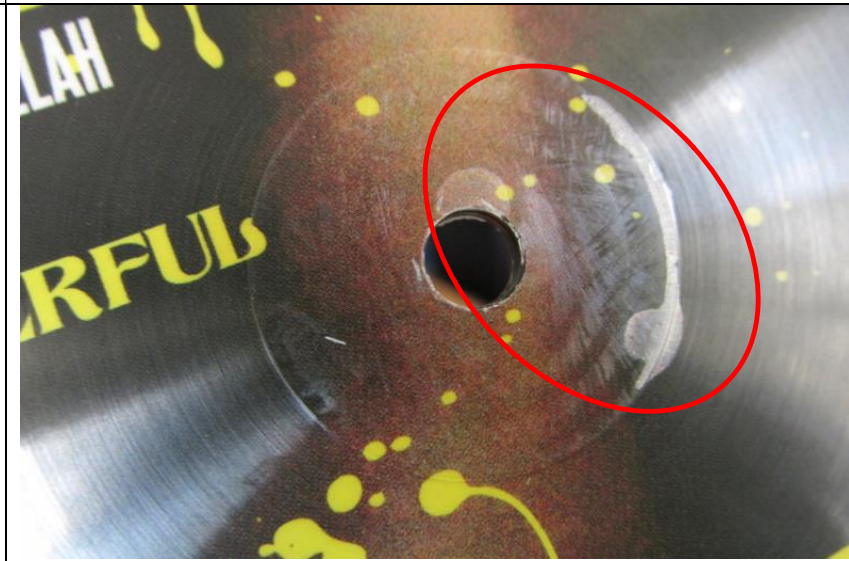
OK

The total area of all blisters does not exceed 78,5mm².
Blisters are placed near to the vinyl center.



NOT OK

The total area of all blisters exceeds 78,5mm².
Blisters are placed outside the vinyl center.



Blisters on labels – Standard records

Defect description: Insufficiently dried colour becomes plastic on the hot stamper surface and stick on the stamper. When opening the pressing machine the colour is torn off or splitting the paper layers resulting in blisters.

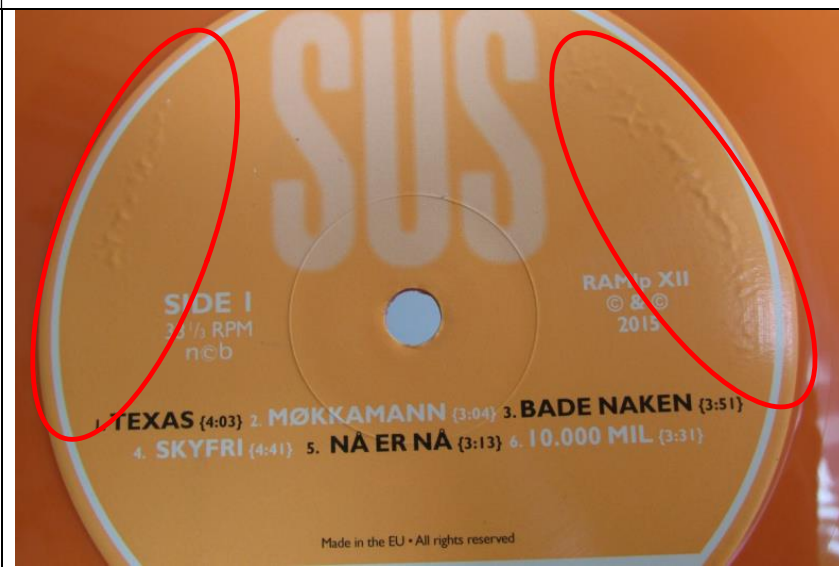
OK

The total area of all blisters does not exceed 78,5mm²



NOT OK

The total area of all blisters exceeds 78,5mm²



Teared labels near by vinyl center

Defect description: The label is teared by the center pin during mounting into the pressing machine.

OK

The tearing is of hairlines' character. The upper layer of the paper must not be teared off. The tearing size is max up to 5mm near the vinyl center.



NOT OK

The upper printed layer of the paper is teared off and the white under layer is visible because of it.



Teared off colour on labels

Defect description : Insufficiently dried colour becomes plastic on the hot stamper surface and stick on the stamper. When opening the pressing machine the colour is teared off or splitting the paper layers resulting in blisters.

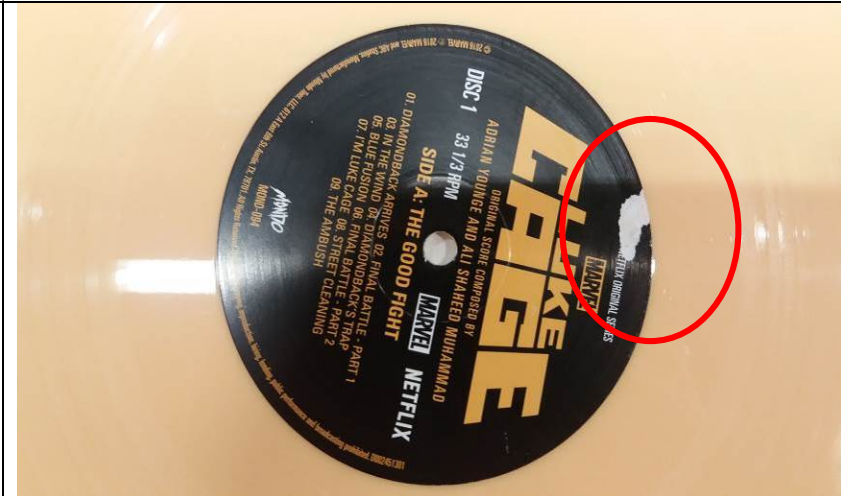
OK

The teared off colour on the label edge does not exceed the length of 30mm. The text is legible.



NOT OK

The teared off colour on the label edge exceeds the length of 30mm. The text is illegible or text is missing.



Spots on labels

Defect description: Records with splatters and hazed recors are usually affected. The powdered or granulated material contaminates the label during the pressing process.

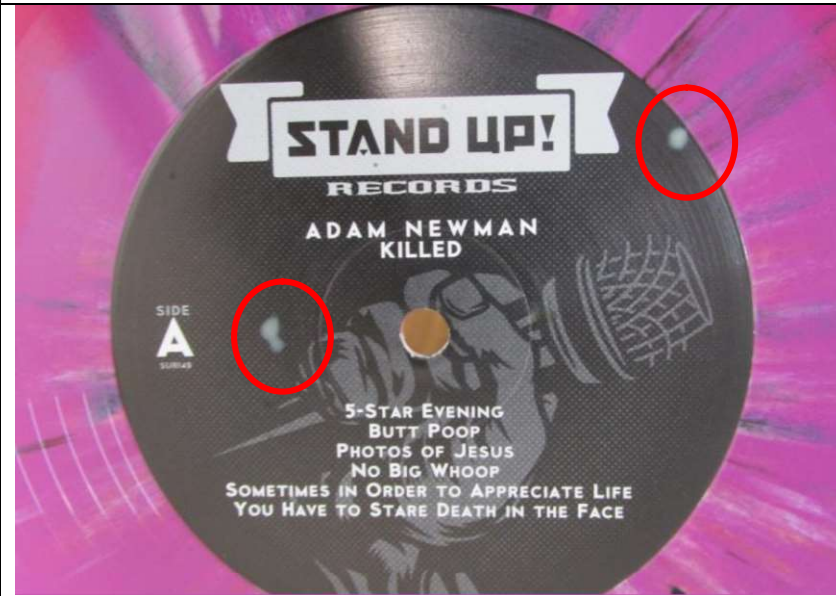
1% label surface = 78,5mm² (this is an area similar to a square 10mm x 7,85mm)

OK

NOT OK

The total of all spots areas does not exceed 78,5mm² (the total of spots areas does not exceed 1% of the label surface).The text is legible.

The total of all spots areas exceeds 78,5mm².
The text is illegible.



Scratches on labels

Defect description: The root cause is unprofessional rough handling. The labels is scratched during removing from the pressing machine.

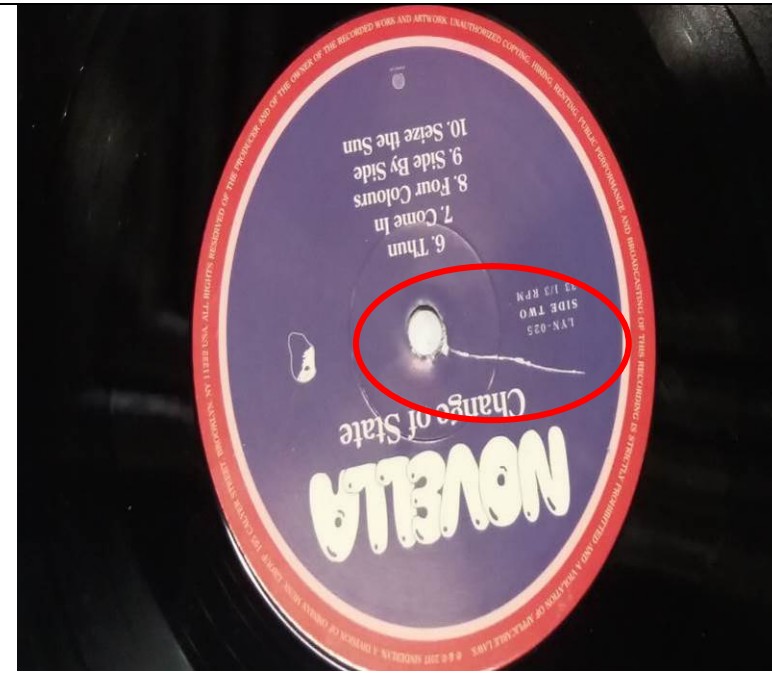
OK

The polishing of the label surface is not damaging the upper layer of the paper. The total number of affected labels does not exceed 10% from the run.



NOT OK

The upper layer of the paper is damaged.



Coloured effects

Vinyl with splatters

Risks and recommendations: When using more splatter colours it cannot be guaranteed that all of them will be visible. Black colour and dark solid colour used as a base colour absorb splatter colours. The result is splatters are less visible. Furthermore when using solid colours as a base colour combined with transparent splatter colours the final effect may be less visible or even imperceptible. We recommend using of transparent colours as a base to achieve a higher contrast. The amount of splatters cannot be defined. Splatters cannot be used on 7" heavy vinyl records. Improper combinations cannot be subject to claim.

Standard

Transparent vinyl with solid splatters



Improper/Wrong combination

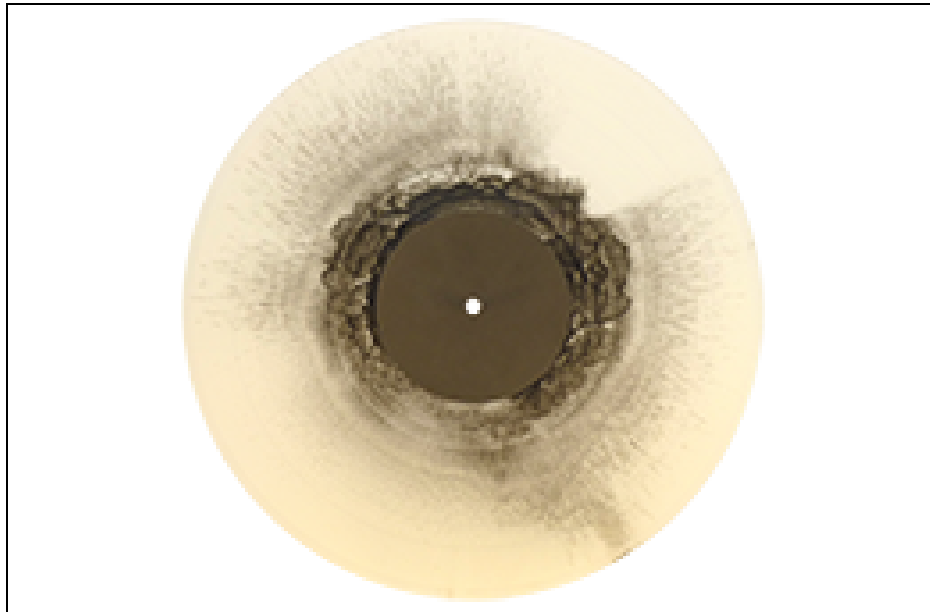
Solid purple with solid green splatters



Hazed vinyl

Risks and recommendations: The recommended combination is a transparent base colour – the final effect is more visible. Hazed vinyl records surface is contaminated with a powder. This cannot be subject to claim. Silkscreen printing cannot be applied on hazed vinyl records.

OK



A side / B side

Risks and recommendations: The recommend combination is to use a solid colour and a contrast colour. When using a dark solid colour and a light transparent color the vinyl effect will be less visible.

Recommended combinations of contrast colours are white and black, white and red, blue and white.

Improper/wrong combinations where the final effect will be less visible/significant are black and red, red and orange, dark blue and black.

Standard
(black with solid green)



Wrong combination
(black with solid red)

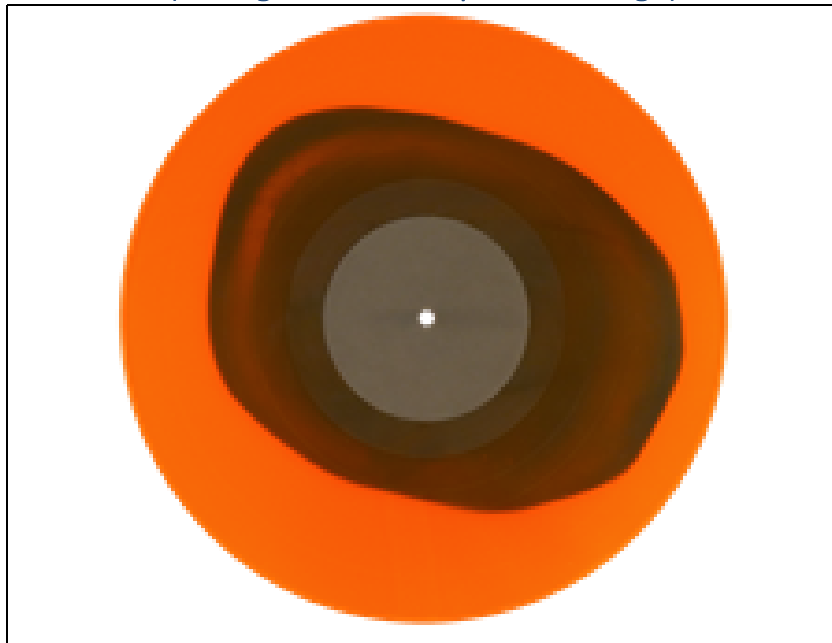


Color in Color

Risks and recommendations: The record is pressed as a small vinyl biscuit into a large vinyl biscuit. When using a small solid vinyl biscuit and a large transparent vinyl biscuit the colours will be bounded. We recommend to use contrast colours, preferably a large vinyl biscuit of a light transparent colour and a small vinyl biscuit of a solid dark colour. It cannot be used reversely. In case both of the vinyl biscuits are solid the final effect is random, colours are penetrated and the final effect is rather A side / B side effect

Standard

(solid green in transparent orange)



Wrong combination

(black in solid green)



Half / Half

Risks and recommendations: The record is pressed as two vinyl biscuits laid side by side. When using contrast colours one half may contaminate the other half in place of the colours' connection. The preferred/recommended combination is to use two solid colours or two transparent colours. There is a risk of hairlines creation on label and also a risk of label wrinkling in place of the colours connection.

Standard
(solid orange with solid red)

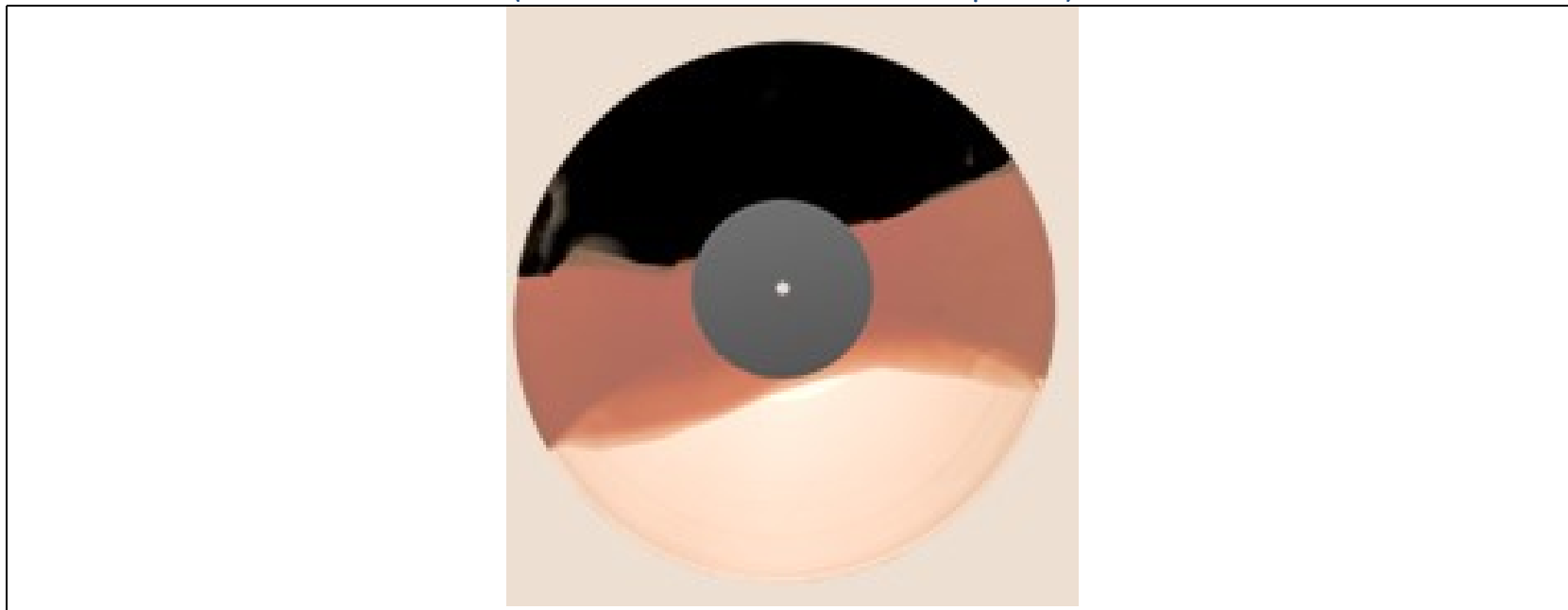


3 color striped vinyl

Risks and recommendations: The record is pressed as three vinyl biscuits laid side by side. When using contrast colours one may contaminate the others in place of the colours' connection. Both transparent and solid colours can be used and combined. There is a risk of hairlines creation on label and also a risk of label wrinkling in place of the colours connection. This cannot be subject to claim as far as the label is not torn or illegible.

Standard

(black with solid brown and transparent)

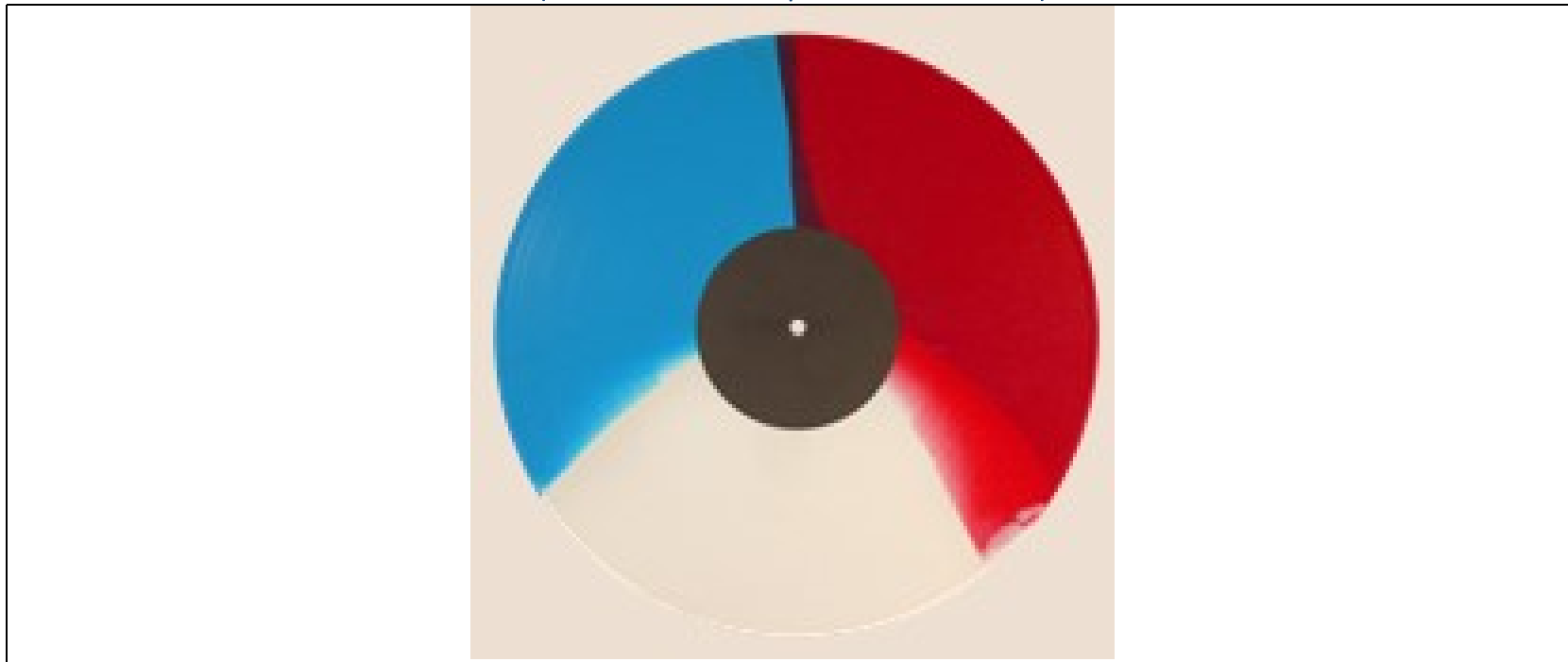


3 color 120° segment vinyl

Risks and recommendations: The record is pressed as three vinyl biscuits laid side by side. When using contrast colours one may contaminate the others in place of the colours' connection. Both transparent and solid colours can be used and combined. There is a risk of hairlines creation on label and also a risk of label wrinkling in place of the colours connection. This cannot be subject to claim as far as the label is not torn or illegible.

Standard

(solid blue with transparent red and white)



Marble vinyl

Risks and recommendations: This is an effect with a marbling on a vinyl record. The base colour must be light transparent, the marbling colour must be dark solid colour, preferably black. The appearance of each individual record will be different.

Recommended combinations: base colour Nr. 14 or P15 with dark marbling colour e. g. Nr. 5, Nr. 4, Nr. 3, Nr. 12, P14, P15, P11.

Standard
(transparent with black)



Standard
(transparent green with black)



SILKSCREEN PRINTED VINYL

Risks and recommendations: The **silkscreen vinyl** can be manufactured in variants with a label and without a label; with a silkscreen print over the label or outside the label. Bear in mind that there is the vinyl centre hole when preparing the graphic/artwork. We recommend to use one label at least – on the side with a recording. In the case a silkscreen printed record without labels on both sides is requested we cannot guarantee the size of the centre hole will be kept. The record profile must be respected when printed. The area around the centre hole and on the small ring around the centre hole will not be printed. Most of PMS colours are partially transparent therefore the final printing result cannot be exactly matched with the PMS sampler. Also there is a high risk the record will be warped in the case there is one label (on the recording side) used only. The warping must not exceed 5mm.

Standard



ETCHED VINYL

Risks and recommendations: The etched picture cannot be combined with a recording. The etched picture can be with a label or without a label. The centre ring on the records is blank. The size of the displayed detail depends on the size of the etched area, respectively on the etched / non-etched area ratio. The etched surface area is not gloss but matte and may show different shades. This cannot be subject to claim. Also there is a high risk the record will be warped in the case there is one label (on the recording side) used only. The warping must not exceed 5mm.

Standard



Picture disc

Risks and recommendations: In the case that a one sided picture disc is requested, only one side of the picture disc will be cut. The other side cannot be "mirrored" (smooth surface with no recording), but there must be a "silent groove" (groove without signal). There are two PD labels used. In the case that an exact orientation is requested it must be specified on the purchase order (e. g. head to head). In the unusual case that a single sided picture disc is requested, the label is usually printed from both sides and the recording is pressed on one side of the record, covered by a plastic foil. The vinyl compound used is usually transparent. The opposite side of the label is visible through the transparent vinyl material on the opposite side of the picture disc. These types of records usually have deformed central holes, are prone to warping more than others and do not comply with the flatness parameters. The warping always occur and flatness parameters are not met. Claims will only be accepted if the deviation is greater than 5mm for 10" and 12" vinyl or 3mm for 7" vinyl. The method of measuring picture discs is the same as with standard vinyl records. Picture discs may have defects in form of smudges (folded, wrinkled foil). As far as the text is legible and the label design is not significantly deformed this cannot be subject to claim. Furthermore, due to the fact that the recording is pressed into a non-standard material for vinyl, picture discs may have deteriorated acoustic properties, for example, especially increased levels of noise and static. These degraded acoustic properties cannot be subject to claim. Classical music or music with quiet parts is not recommended to be used on picture discs.

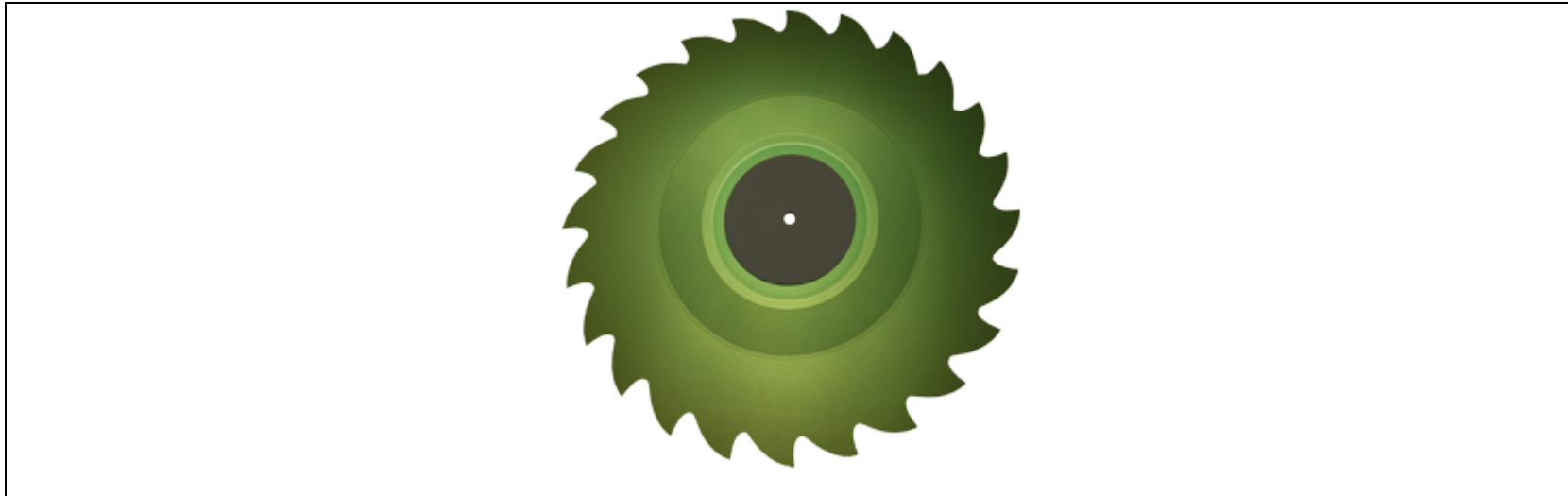
Standard



Shape disc

Risks and recommendations: Shaped vinyl are records which are shaped into various geometric shapes using a cutting tool. The shapes are determined based on drawings or designs submitted by the customer. The min. radius is 3mm. When a special shape is requested, it is important to choose a suitable format (either 12" or 10") due to the fact that the record has to have 175mm of recording area left in the centre of the vinyl. The raw material for shaped vinyl can either be standard black or coloured, in 10" or 12" format vinyl and as standard or heavyweight.

Standard



Shaped picture disc

Risks and recommendations: These records may have deteriorated acoustic properties, for example, especially increased levels of noise and static. For picture discs is not recommended classical music or music with quiet parts.

The picture disc label must be by 2-3mm smaller than the requested final shape size. The only shaped picture disc option available is a one sided picture disc where warping always occur and flatness parameters are not met. The label shape may not include radius smaller than 3mm and also thin areas where the risk of label crackling is higher.

Standard



NOT OK



