

ADC MD40 IMAGING PLATE

Increased sensitivity and sharpness at low dose



The new ADC MD40 imaging plate is Agfa's latest high-technology version of a key link in the digital imaging chain, ensuring improved image quality for dedicated applications.

Superior image quality

The ADC MD40's storage phosphors feature high absorption efficiency, excellent homogeneity and short response time. The latter means that the previous pixel is fully faded before the next one is stimulated. As a result, a higher level of sharpness at all spatial frequencies is attained.

Agfa's EBC top-coating technology provides a smoother plate surface, giving improved signal-to-noise ratios. The anti-halo layer is an Agfa-patented blue layer that forms a perfect barrier against laser light, while letting through the stimulated light.

The ADC MD40's increased sensitivity and sharpness at a low dose make this imaging plate especially suitable for dedicated applications.

Long lifetime

ADC MD40 imaging plates are protected by an EBC (electron-beam-cured) top coat. EBC top-coating is an Agfa-proprietary technology for hardening a pre-polymer lacquer coat into a high-density polymer shield that protects the phosphor layer. This results in plates that feature superb resistance to mechanical wear and extensive immunity to chemical cleaning solutions. A new adhesion layer is an additional improvement for the imaging plate's stability, guaranteeing its superior durability, especially when Agfa's ADC Digital Screen Cleaner is used for plate maintenance. Finally, the ADC reader handles the imaging plates without any forced bending, further contributing to their exceptionally long lifespan.

Downward compatibility

Each ADC MD40 imaging plate is identified by a code on the back. The ADC MD40, ADC MD30 and ADC MD10 plates can be used together without any problem.

No more retakes

The storage phosphors on the ADC imaging plate have an extremely wide dynamic range. This results in high tolerance for varying exposure conditions and a greater degree of freedom in selecting the patient dose. Furthermore, in many cases the wide exposure latitude of the ADC MD40 imaging plates allows the visualization of all diagnostic information with a single exposure - e.g. bone and soft tissue. Both of these features have the effect of drastically reducing the retake rate. In this way, the use of ADC MD40 imaging plates leads to a substantial reduction of the population dose load.

ADC MD40 Imaging plate

Technical data

Requirements

ADC ID Software version 1.1.09 or higher (Unix®)
ADC ID Software version 2.0 or higher (Windows®)

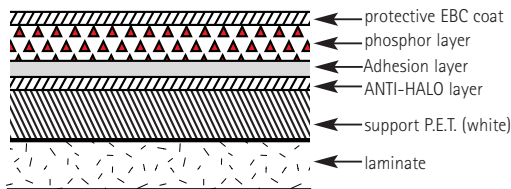
Sizes

18 x 24 cm
18 x 43 cm
20 x 40 cm
24 x 30 cm
35 x 35 cm (14 x 14")
35 x 43 cm (14 x 17")
15 x 30 cm
8 x 10"
10 x 12"

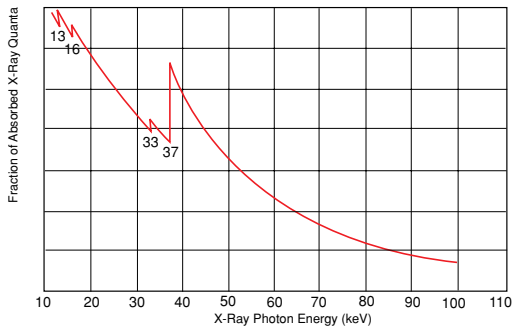
Phosphor composition

BaSrBrI:Eu
Typical luminescence 400 nm

Plate structure



Spectral absorption



High absorption efficiency, with typical sudden increase at the Br, Sr, I and Ba K-edges of 13, 16, 33 and 37 keV

Image retention

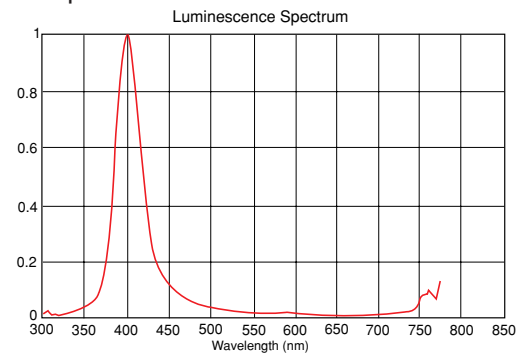
Two hours after exposure 70% of the stored energy is still present with no visible loss of information upon readout.
Image retention still exceeds 45% after 24 h. Readout is recommended within 1h after exposure.

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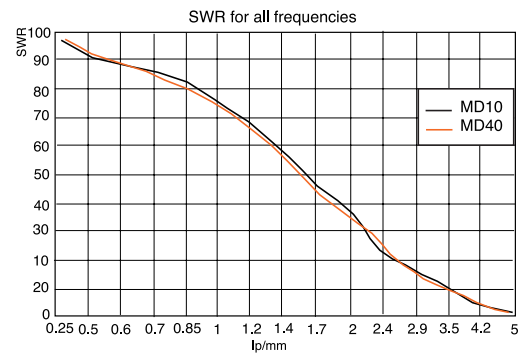
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Spectral information



Sharpness - MD10 versus MD40



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