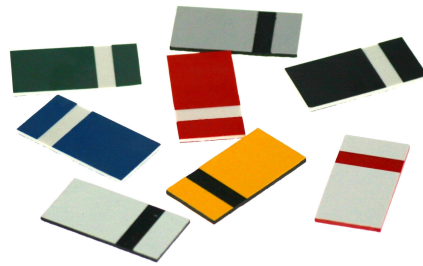


## Multipal

Version: 10ZT09E

Product data sheet

### Engraving Materials



#### Product Description

*Engraving materials* are decorative high-pressure laminates ( HPL ) as specified in DIN En 438-1 and come mainly in solid colours. As opposed to standard laminates, engraving material has a triple-layer, symmetric construction of melamine resin cellulose layers. Each layer has its own distinct colour. Usually, the colours of the outer two layers contrast strongly with the core colour. This contrast makes the engraving stand out, distinctly improving legibility.

The overlay layers are kept thin for engraving purposes. Their thickness is 0.1 mm. High gloss surface finishes add to the contrast with the core layer.

The plain coloured papers are uniformly dyed. Batch to batch colour uniformity is guaranteed meaning later orders match existing colours perfectly. The papers are free of heavy metals and highly resistant to light, having a DIN 53799 rating of 6 or 7.

Aluminium foil can also be applied as double sided cover layer to the core by means of high pressure for use as an engraving material.

#### Available Products

11050201..	(blue white blue) glossy
11070401..	(yellow black yellow) glossy
11022401..	(grey black grey) glossy
11075201..	(green white green) glossy
11061201..	(red white red) glossy
11040201..	(black white black) glossy

**11020501.. (white blue white) glossy**

**11020401.. (white black white) glossy**

### **Balancing Layer and Engraving Materials**

*Engraving material* is a material that requires no high-density fibreboard and therefore no balancing layer when used.

### **Dimensions and Quality**

All *engraving sheets* come in 605 x 1220 mm or 805 x 1220 mm dimensions and are shrink-wrapped in four-pack units.

( Special sizes and standard 2440 x 1220 mm size available on request. )

The engraving material is mainly manufactured with a high gloss ( HGL ) surface finish. Material surface finishes in textured mat ( MAT ) or Miniperl ( MPM ) are also possible. Ask about other surface textures.

The tolerance limits allowed by DIN EN 438 for length and width deviation are:

- 0 mm and + 10 mm

Thicknesses for these products are 1.0 mm, 1.4 mm, 2.0 mm, 3.0 mm,

Deviations in the thickness are also subjected to the limits specified in DIN EN 438.

<b>Nominal thickness</b>	<b>Maximum tolerance</b>
0.6 – 1.0 mm	± 0.10 mm
> 1.0 - 2.0 mm	± 0.15 mm
> 2.0 - 2.5 mm	± 0.18 mm
> 2.5 - 3.0 mm	± 0.20 mm

If you require thicker *engraving material*, we suggest you contact us.

The fire behaviour of the *engraving material* is classified as B 2 according to DIN 4102.

***Engraving material is only pressed in standard quality.***

## **Applications and Working with the Material**

The engraving material is suitable for all nameplates, designation tags and signs. When used outdoors, moisture may affect the long-term quality.

**The engraving material can be cut milled and drilled with tools that are fitted with hard metal implements.**

Tool data:

- Saw blades with a minimum of 70 teeth
- Cutting speed: 2800 Rev./min
- Router with 30° eccentric relief cutter
- Router speed up to 30,000 Rev./min
- Feed of approx. 600 mm/min

Particularly important in determining the feed rate is the size of the motif or lettering. The larger the motif or lettering is, the slower the feed rate should be that is used.

The engraved plates can be mounted with an adhesive (neoprene, epoxy, polyurethane). Another common method of mounting employs the use of bolts and lock washers. The drilled hole diameter should be at least 1 mm greater than the bolt shank.

## Cleaning and Care

Clean the engraving material with a clean cloth, soft moist sponge or a soft brush. Use water and detergent, soft soap or curd soap. Dry the surface using a paper towel.

**Abrasive cleaning agents or detergents containing acids or lyes should not be used under any circumstances.**

## Storage

The engraving sheets must be kept in a closed room with a controlled climate of 18-25°C and 50-60% relative humidity. Furthermore, they must lay entirely flat in a horizontal position with 200 mm distance to the floor. Protect the pile of engraving sheets from:

- moisture
- direct sunlight
- from standing in the path of warm air flow.

If it is not possible to store the sheeted material in a horizontal position, the sheets may be stored on an 80° angle with full surface contact and a counter weight at the bottom to ensure that the pile doesn't kick out.

## Disposal

*Engraving materials* – Waste can be disposed of in officially designated combustion plants where they are **incinerated**.

German law classifies laminate (HPL) waste as Class I “miscellaneous hardened plastic waste material,” which means that it may be disposed of as normal household rubbish.