



**Instructions Manual**

**MPW445**

**Turn any wall into a projection screen!**

## Instructions for use Mighty Brighty MPW445

**Dear professional user/painter & decorator/installer**

This box contains enough Projection Screen Paint to treat several large screens or walls. You need to use the right tools to achieve the best results. We advise you to purchase a number of MPA 405 Tool Kits, which have been specially developed for use with Mighty Brighty paint.

If your customers want an attractive dark border around their screen, we also advise you to purchase a number of MPA 410 MagneBorder Kits before you start.

The enclosed instructions explain how to apply Mighty Brighty Projection Screen Paint correctly. These instructions are also used for Mighty Brighty retail packs for consumers, so the explanations may sometimes be more detailed than a professional user requires.

**The following points require particular attention:**

- Step 2.1: Determining the contrast value
- Step 3.1: Determining the brightness value

Soon you will be enjoying the benefits of the perfect projection screen for your specific situation. It is important that you carefully follow each step of the instructions on the following pages. You also need to have a little bit of patience for the next few hours. Because of the drying time that is required for the different layers of paint, you might easily need 8 hours to apply the product. (Of course, you can do the first steps today and continue later.) We advise to apply on day 1 the 2 layers of BaseCoat and on day 2 the 2 layers of TopCoat.

## Make your own screen in 4 easy steps:

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## Before you begin

*Shake all products well for at least 15 seconds*

### **The surroundings:**

Make sure that the area and surface that will be painted are free of dust and that no air circulation system is on (for example: air conditioning, fan). This ensures that no dust will stick to the wet wall while the paint is being applied.

### **The temperature:**

The Mighty Brighty paint system can best be applied at a room temperature that is between 15 and 25° Celsius (59 and 77° F) and with a humidity that is between 40 and 70 percent. A different room temperature or humidity can require a longer drying and thereby waiting time. (Important: The paint layers cannot be applied if the room temperature is lower than 5° Celsius (41° F).

The wall (or other surface) upon which the Mighty Brighty paint system will be applied

The Mighty Brighty paint system can be applied on stone, cement, wood, plastic or sheetrock and on all materials that have already been painted with a normal wall paint. You do, however, have to check the following:

-Flat:

Important: The wall must be flat or flat enough (if you stand 2 or 3 meters (6 or 9 feet) from the wall it should look flat and even).

(See illustration)



good

satisfactory

not suitable

*Tip:*

*Inspect the wall closely and repair any small irregularities, scratches or holes. Then sand the wall lightly to even it out.*

**-Walls with a synthetic finish:**

If your wall or surface has a very smooth synthetic finish, you must first apply an adhesive layer so that the Mighty Bright paint system can adequately adhere to the wall. Walls made of particle board or MDF should be thoroughly cleaned with turpentine or paint thinner. You must also apply an adhesive layer to these walls.

*Special note:*

*A synthetic surface cannot absorb any liquid. While drying, temporary air bubbles may appear in the paint that has been applied. Do not touch them. They will disappear by themselves as the paint dries.*

**-Absorbency:**

If the wall is very absorbent, you should first treat it with a pre-paint coating. (The amount that you need will be determined by the type of surface)

**-Dirt:**

If the wall is very dirty (for example, smoke stains, water stains) you will first have to treat it with a good stain-blocking paint.

**-Dark:**

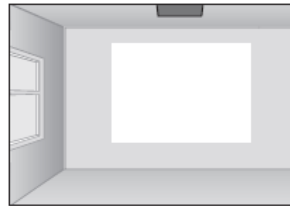
If the surface is very dark you will first have to treat it with a standard white wall paint.

## Step 1: Determining the location, size and dimensions of the screen

The big advantage of Mighty Brightly compared to a traditional projection screen is that you can now determine exactly the right format for your projection screen. The measurements of the dark magnetic border around your screen are determined by the length of the dark magnetic border that comes with the paint system. This so-called MagneBorder is 10 meters long. This means the following for the maximum size of your screen:

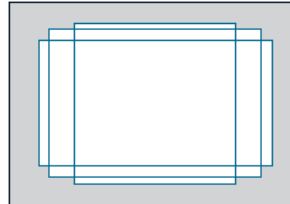
Screen dimensions:	Maximum screen size in cm (inch):
1 : 1	2.35 x 2.35 m / 93 x 93 "
4 : 3 (= 1.33 : 1 = PAL / NTSC Video)	2.68 x 2.01 m / 106 x 79 "
16 : 9 (= 1.78:1 = Widescreen HDTV)	2.99 x 1.68 m / 118 x 66 "
1.85 : 1 (Letterbox Video)	3.06 x 1.65 m / 121 x 65 "
2.35 : 1 (Anamorphic)	3.30 x 1.40 m / 130 x 55 "

1: Install the projector in its set location, according to the instructions provided with the projector



2: Turn the projector on and project an image on the wall (see illustration)

3: Select the desired dimensions on the projector (1:1, 4:3, 16:9, etc) (see illustration)



4: Use the zoom function to determine the exact size of the screen that you prefer. Check that the image does not extend past the maximum dimensions given above.

5: Adjust the image until it is sharply in focus. Make the screen exactly level using the keystone function of your projector. Now you have determined the correct format of your screen. The next important step is the final check.

6: To check the format of your screen, project an image from a TV channel and from a DVD player onto the wall. While it is playing, make sure that the screen format remains the same. Adjust the screen format as needed to fit the actual playing format.

## Step 2: Mixing and applying the basis layer of paint (BaseCoat)

- 2.1 Determining the contrast of the basis layer (BaseCoat)
- 2.2 Applying the basis layer (BaseCoat)

### 2.1 Determining the contrast of the basis layer (BaseCoat)

Complete all of the questions on the Questionnaire on page 14 in order to determine the contrast. The calculated number determines how many bottles of ContrastBooster that you should add to the BaseCoat. You will find this number below on the list of questions after going through these steps. Enter the number again here. My ContrastBooster Total: \_\_\_ bottles

Add the determined number of bottles of ContrastBooster to the BaseCoat and stir well for at least 3 minutes until the color of the mixture is uniform.

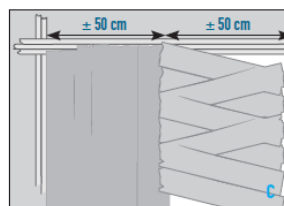
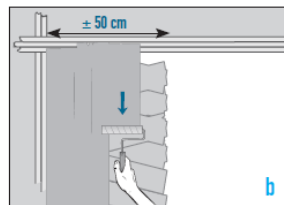
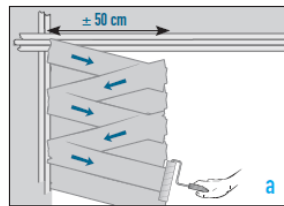
### 2.2 Applying the basis layer (BaseCoat)

Apply the BaseCoat in an even layer over the entire screen surface, that means the entire area between the tape strips. Apply the layer as follows: Start in the upper left hand corner.

Paint a strip that is about 50 cm wide. Apply the paint evenly. Always start with horizontal strokes (see [illustration a](#)) and then roll the paint on in vertical strokes without stopping in the middle of a strip (see [illustration b](#)).

Always roll the paint on with even and smooth movements.

Then continue by painting a second strip of about 50 cm. Make sure that there is a slight overlap with the first strip (see [illustration c](#)).



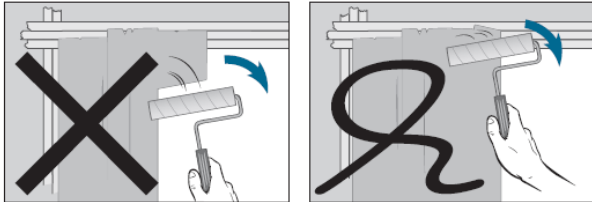
Always apply the paint fully “wet on wet”. For larger areas (for example, an entire wall), make sure you have a long enough handle on your roller.

Repeat this until the screen area is completely painted. **Let this layer dry for at least 60 minutes.** During drying, place the roller in the roller pan and make sure that it is covered with sufficient paint to prevent it from drying out.

Apply a second layer of BaseCoat over the entire area in the same way.

As you do so, pay attention to the following:

- Never go over an area that's already been painted a second time with the roller.
- Remove the roller from the wall only when it reaches the tape strip. Do not remove the roller from the wall if it is still on the screen (this can leave behind a visible mark). (see [illustration](#)).



**Let this layer dry for at least 120 minutes.**

Remove the roller cover and clean the roller thoroughly. Remove the rest of the paint from the roller pan and clean it completely.

**Important:** Make sure that absolutely no residue of paint remains in the roller pan!!! Paint particles can cause problems in applying the top layer (TopCoat).

If you see any uneven spots -during projection / turn the projector on- on the second basis layer, sand very lightly and very, very carefully until they disappear. (Be careful not to sand too deeply or you will expose the original wall or make the basis layer visible!). Leave the tape on the wall. Use a rag or soft brush to remove dust from the surface.

*Tip: if you turn the projector on you can easily see any irregularities or bad spots.*



## Step 3: Mixing and applying the top layer of paint (TopCoat)

- 3.1 Determining the brightness of the top layer (TopCoat)
- 3.2 Applying the top layer (TopCoat)
- 3.3 Wait for screen to harden

### 3.1 Determining the brightness of the top layer (TopCoat)

Complete all of the questions on the Question List on page 14 in order to determine the brightness.

The calculated number determines the amount of that you should add to the. You will find this number in "My BrightnessBooster Total" on the list of questions.

Enter the number again here. My BrightnessBooster Total: . . . . .

The calculated number determines how many bottles of BrightnessBooster that you should add to the TopCoat. You will find this number below on the list of questions after going through these steps.

Enter the number again here. My BrightnessBooster Total: \_\_\_ bottles

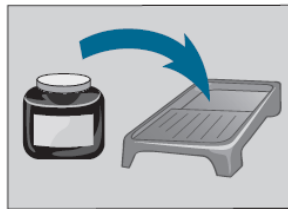
Add the determined number of bottles of BrightnessBooster to the TopCoat and stir well for at least 3 minutes until the color of the mixture is uniform.

### 3.2 Applying the top layer (TopCoat)

1: Stir the TopCoat mixture with a new stir stick for at least three minutes.

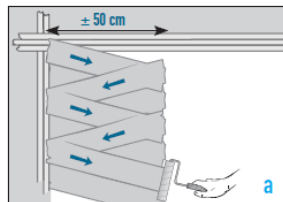
Afterwards close the big bottle tightly and shake it well.

Pour the mixture into the clean roller pan (see [illustration](#)).

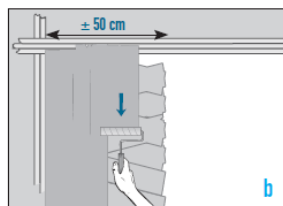


2: Attach the last new large roller cover (large short-haired 2K roller) to the handle. Make sure the roller is completely covered with TopCoat and roll it over the surface of the roller pan to distribute the paint evenly. Apply the TopCoat over the entire area between the tape strips.

3. Apply the TopCoat in an even layer over the entire screen surface, that means the entire area between the tape strips. Apply the layer as follows: Start in the upper left hand corner.

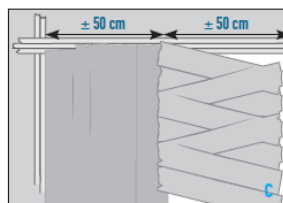


Paint a strip that is about 50 cm wide. Apply the paint evenly. Always start with horizontal strokes (see [illustration a](#)) and then roll the paint on in vertical strokes without stopping in the middle of a strip (see [illustration b](#)).

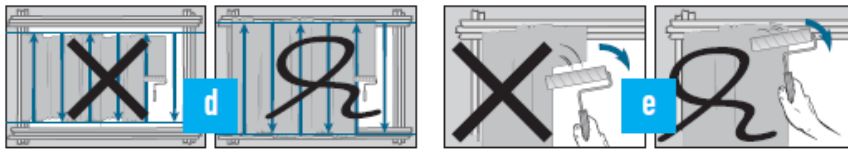


Always roll the paint on with even and smooth movements.

Then continue by painting a second strip of about 50 cm. Make sure that there is a slight overlap with the first strip (see [illustration c](#)).



You should only change the direction of painting on the tape border. That means not on the screen! (see [illustration d](#)). Remove the roller from the wall only when it reaches the tape strip. Do not remove the roller from the wall if it is still on the screen (this can leave behind a visible mark). (See [illustration e](#)).



**Important:**

- End each stroke of the roller in the same direction! This means, end each stroke:
  - From top to bottom, or
  - From bottom to top

This way the reflection particles in the TopCoat are always in the same direction.

- Important: Always paint wet on wet! By this we mean the following: Once you start applying the topcoat it is very important that you continue until the layer is completely finished. Do not stop in between.

After you are finished keep the tape strips on the wall. Let the TopCoat dry **for at least 120 minutes**. During drying, place the roller in the roller pan and make sure that it is covered with sufficient paint to prevent it from drying out.

*Tip: if you turn the projector on after the paint has dried you can easily see if the top layer (TopCoat) has been smoothly applied.*

4: Apply the second layer of TopCoat in the exact same manner (see point 2).

Important: Let this last layer of TopCoat dry for a **minimum of 2 hours and a maximum of 3 hours**. Carefully remove the tape strips. Make sure that the tape does not touch the screen surface while you are removing it!

Special Note: After two hours of drying time you can already project onto your new screen. Make sure that you do not touch it, because you will leave behind visible fingerprints or damage on the TopCoat!

### **3.3 Wait for screen to harden**

It takes at least one week for the Mighty Brighty coatings to sufficiently harden. During this week the coatings will continue to improve in appearance. You will also notice that small irregularities and stripes will disappear or become much less visible.

## Step 4: The enormous fun can begin

Your screen is finished. Congratulations! You can now use your screen. But your screen will get even better: The active brightness boosting ingredients in the top layer require at least six weeks of extra drying time to produce their optimal reflective performance.

Are you satisfied with the end result? Do you have additional questions or comments?

Please mail us. Preferably with a picture of your Mighty Brighty projection screen or home theater. Mail it to: [info@mightybrightlyshop.com](mailto:info@mightybrightlyshop.com)

We would like to thank you for your patronage and your trust in our product. We hope that you shall enjoy your self-made Mighty Brighty screen for many many years to come.

## Final notes

- Maintenance
- Safety
- Guarantee

### - Maintenance:

The screen should not be cleaned for the first eight weeks. After that, you can clean the screen with a soft, fuzz free cloth and lukewarm water. You can also add some mild liquid soap to the lukewarm water if desired.

### - Safety:

All Mighty Brighty Coatings are completely water-based and contain no hazardous solvents or other hazardous ingredients. The products do not have any special handling requirements. We do advise that Mighty Brighty Products be stored and kept out of reach of children.

The Mighty Brighty MagneBorder also has no specific safety precautions. The product complies with the European standard for children's toys (EN 71-3: 1994).

The complete safety specifications (MSDS sheets) can be downloaded at: [www.gratch.com](http://www.gratch.com)

**- GUARANTEE TERMS AND CONDITIONS**

1. Mighty Brighty guarantees that if during the guarantee period of a product, faults arise due to defects in manufacturing and/or materials, it will, at its discretion, repair or if necessary replace the product, free of cost. A guarantee for normal wear and tear is hereby expressly excluded.
2. If the guarantee is invoked, the product should be sent to Mighty Brighty together with the original purchase document (invoice, sales slip or cash receipt). The purchase document should clearly show the name of the supplier and the date of purchase.
3. Mighty Brighty guarantee shall lapse in the following cases:
  - If the product has not been drilled, installed and used in accordance with the Instructions for Use;
  - If the product has been altered or repaired by someone a party other than Mighty Brighty;
  - If a fault arises due to external causes (outside the product) such as for example lightning, water nuisance, fire, scuffing, exposure to extreme temperatures, weather conditions, solvents or acids, wrong use or negligence;
  - If the product is used for different equipment than is mentioned on or in the packing.

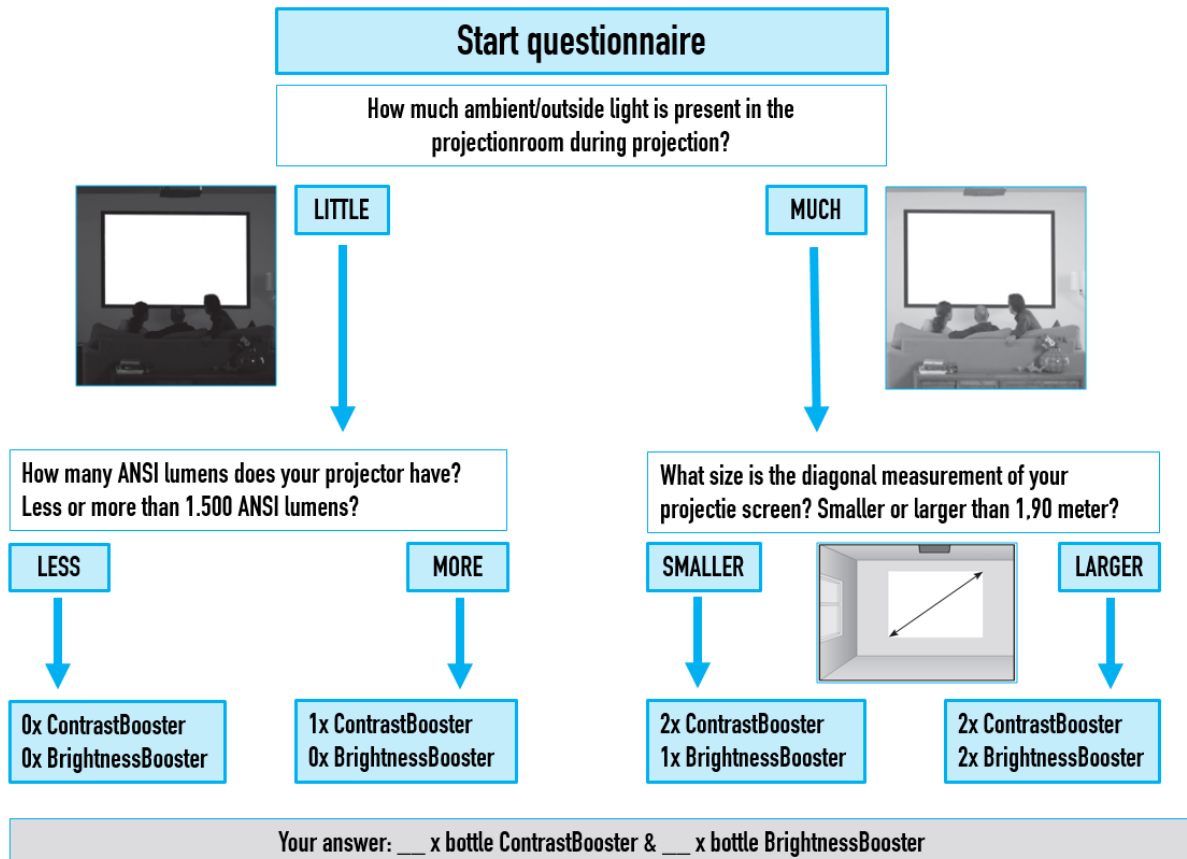
## Appendix 1:

### Question list to determine the Contrast & Brightness of your screen

By adding ContrastBooster to the BaseCoat you can create exactly the right contrast for your screen (Low – Middle – High Contrast).  
By adding BrightnessBooster to the TopCoat you can create exactly the right brightness (also called 'Gain') for your screen.

But how do you determine the correct contrast and brightness for your projector and projection environment?

It is very easy: Just answer the following questions, add up the results, and you will know exactly how much ContrastBooster and BrightnessBooster you need to add to create the perfect screen for your specific situation.



## Appendix 2:

# Spraying Instructions Mighty Brighty Projection Screen Paint

### Before you begin:

1. Carefully read the following chapters in the instruction booklet, before you begin:
  - The surroundings and temperature
  - The surface upon which Mighty Brighty will be applied
2. Cover the side-walls, floor and ceiling with paper or plastic sheets if necessary.
3. Remove or cover objects (e.g. chairs) with paper or plastic foil. Some overspray during spraying can adhere on the objects.

### Recommended Equipment:

#### Diluted (HVLV)

##### **BaseCoat**

Dilute BaseCoat with appr. 15 - 20 % water.

We recommend using a Compression Turbine (e.g. Graco 4900)

in combination with a High Volume Low Pressure gun with

a 2 mm tip. Adjust the air/paint mixture in the optimal manner for consistent coverage using about 0,5 bar pressure. Follow the instructions of the manufacturer.

Keep the gun at a constant distance (appr. 15 cm) of the wall. Release the trigger at the end of each stroke. Then depress the trigger and overlap the previous stroke by about 1/3. Continue for consistent coverage. After drying (ca. 60 minutes) apply a second (cross-)layer of BaseCoat.

##### **TopCoat**

TopCoat will **not** require dilution. Follow the same procedure as above for the BaseCoat.

Remark: In case of using a compressor in combination with HVLP guns, you will have to use a compressor with high capacities (>500 ltr/min.).

#### Undiluted (Airless)

##### **BaseCoat**

We recommend using an electric airless type of pump (e.g. Graco 495)

with spraying-angle of 60° and spraying-nozzle of 0,015" or larger. Pressure appr. 200 bars. Maximum spray hose of 16 meters. Follow the instructions of the manufacturer.

Keep the gun at a constant distance (appr. 25 cm) of the wall. Release the trigger at the end of each stroke. Then depress the trigger and overlap the previous stroke by about 1/3. Continue for consistent coverage. After drying (ca. 60 minutes) apply a second (cross-)layer of BaseCoat.

##### **TopCoat**

Follow the same procedure as for the BaseCoat. The recommended pressure will be about 180 bars.

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