

# GRAFTYP

makes you stick



## Manual

### Working with cutting films

[grafityp.com](http://grafityp.com)

## NECESSARY TOOLS



It goes without saying that you need the right tools if you want to do a good job. The following tools are essential:

### 1. Plastic squeegees

The plastic squeegee is one of the most important tools for a good application. It is available in various degrees of hardness.

Soft squeegees wear out rather quickly, and are less suited to press air bubbles from underneath the vinyl. On the other hand, it is easier to follow the outlines of uneven surfaces or rivets with a soft squeegee.

Harder squeegees are easier to press air bubbles from underneath the vinyl. However they are less suited for uneven surfaces.

Anyway, it is very important that the squeegee does not have any sharp edges that can penetrate into the vinyl.

Plastic squeegees are used only as long as the application tape is still on the vinyl.

### 2. Felt squeegees

Felt squeegees are used when there is direct contact between the squeegee and the vinyl. You are less likely to damage the vinyl with a felt squeegee, than you are with a plastic squeegee. When the application tape has been removed from the vinyl, we'd rather advise you to use a felt squeegee.

Instead of using a felt squeegee, some sign makers prefer shoving a piece of cloth or self adhesive felt over their plastic squeegee.

### 3. Rivet brushes

In the past, this was a tool that was essential for pressing the vinyl round rivets. Nowadays however, big trailers are made with seamless panels.

#### 4. Knives and Prickers

After the vinyl has been applied, you often still see air bubbles underneath the vinyl. Small air bubbles will disappear automatically after some time, but the larger ones need to be pricked. Always use a pricker with a very thin needle, and rub the air from underneath the vinyl with your thumb. If you use a knife to prick the vinyl, please make sure you don't make an incision in the vinyl. Just prick the vinyl at the edge of an air bubble – this will do to rub the air bubble from underneath the vinyl. A tiny hole will close again by itself.

#### 5. Heat gun

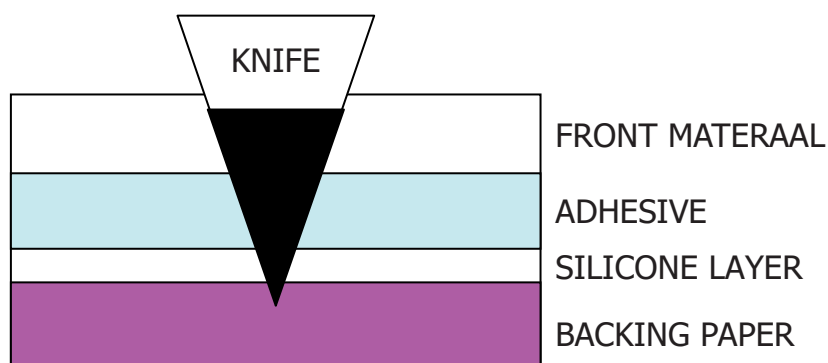
If you want to apply cast vinyl onto rivets or other uneven surfaces, we advise you to heat the film for a while. A heat gun is the perfect tool to do so. Please make sure you don't burn the vinyl. The recommended temperature settings are mentioned in our manual "wrapping".

6. Small tools, such as a measuring rod, paper tape, grease pencil, spray bottle,

## CUTTING LETTERS AND LOGOS

Before cutting a film, leave it as long as possible (at least 12 hours) in the room in which you are going to cut it, so it can get acclimatized to the room temperature. If you fail to do so, this can result in unwanted problems, due to the film being less tacky and more rigid.

The quality when cutting texts and logos from self adhesive films with a computerized cutting machine depends on the knife pressure on your film and the type of cutting knife chosen. In general, cutting cast film requires less knife pressure than cutting calendared films does. Insufficient pressure causes difficulties when peeling the film, whereas too much pressure on the knife results in cutting through the silicone layer of the backing paper. This also causes problems when peeling the film, as the backing paper may be pulled off together with the film (split). After changing the cutting knife or the film, we advise you always to carry out a small cutting test before starting with your next job.



The cutting knife cuts too deep – the silicone paper may split

## PEELING THE FILM

Peeling (weeding) is the removal of the superfluous film around a text (positively or negatively). Start peeling from the upper or lower right hand corner of the text, and pull away the superfluous film with little short pulls.

This is preferably done at a temperature between 15°C and 23°C.

Do this as quickly as possible after having cut the text on the plotter. The glue can sometimes flow back together, e.g. when it is too warm.

Remove the superfluous film in an angle of 30°.



## APPLYING APPLICATION TAPE (by machine or manually) on the film



Application tape or -paper is applied manually on the cut text in the following way.

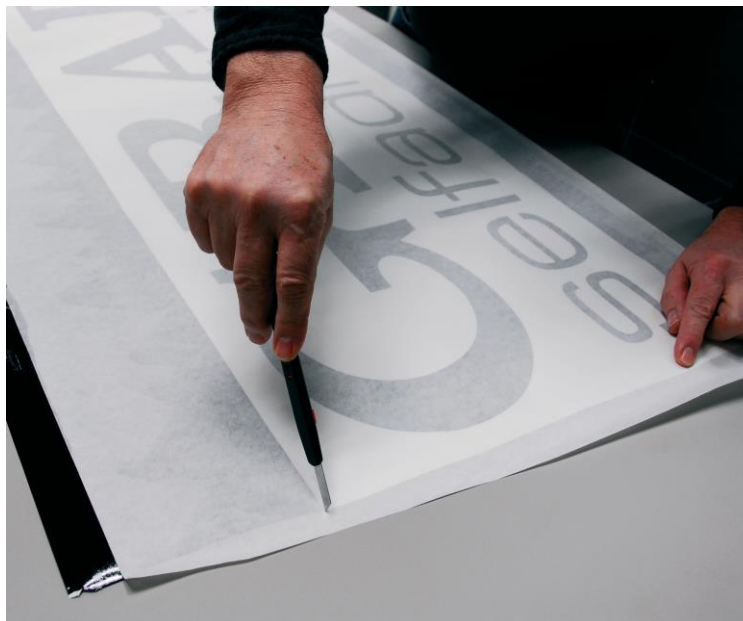
Apply a piece of application tape without creases over the peeled text or logo.

Use a piece that is bigger than the frame you cut around the text.



Then use the hard plastic Grafityp squeegee to rub the application tape firmly. Start at the middle of the text, and rub towards the outer side, so the air can easily escape from underneath the tape. Any remaining air bubbles are pricked, after which the application tape is rubbed firmly once again.

Always hold the squeegee at an angle and work in 50% overlapping movements.



Afterwards cut off the surplus of vinyl and application tape.

If you cut a peel frame around your desired text, you have an easy guideline to do so. This also gives you a perfect horizontal and vertical border around your text, which makes it easier and a lot faster to position your text on a panel, a window, the body of a car, etc....

Don't roll up the vinyl with the application tape into a small roll. In that case the application tape might come off again or get deformed.

## **CLEANING THE SURFACE**

Even if it looks like the surface is completely clean, there is often dust or grease on it. Remove this with clean, dust-free cloths, using isopropanol, ethanol or another liquid that contains little or no alcohol.

Always test first whether these fluids don't attack the surface.

## APPLYING THE FILMS

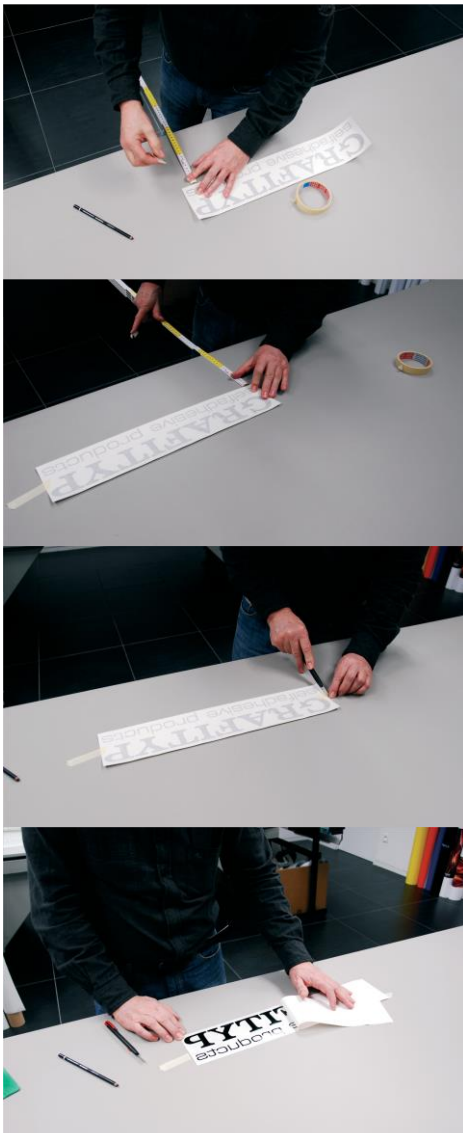
There are two ways of applying films, namely dry and wet application. The method to be used, depends on the size and the level of difficulty of the work. The temperature of the surface and the film should be more than 10 degrees Celsius.

### DRY APPLICATION

This application method is recommended in most cases. The advantage of it is, that the film will stick immediately at those places, where it is under tension.

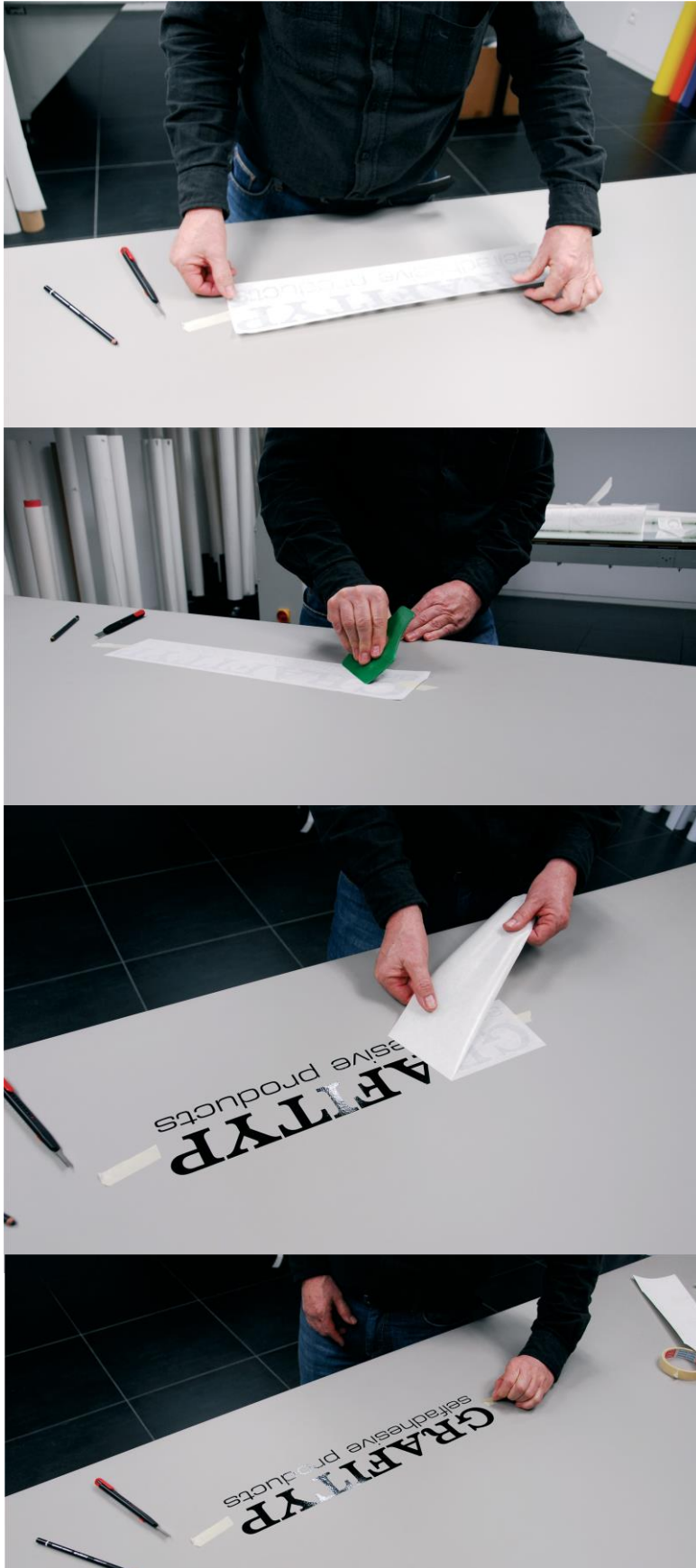
### WET APPLICATION

This method is often used for sign making on windows (with sandblast effect films) or for applying very large pieces of film on panels. The main advantage of this method is, that it is much easier to rub air bubbles from underneath the film, but it will take a longer time until the film has reached its final adhesive strength.

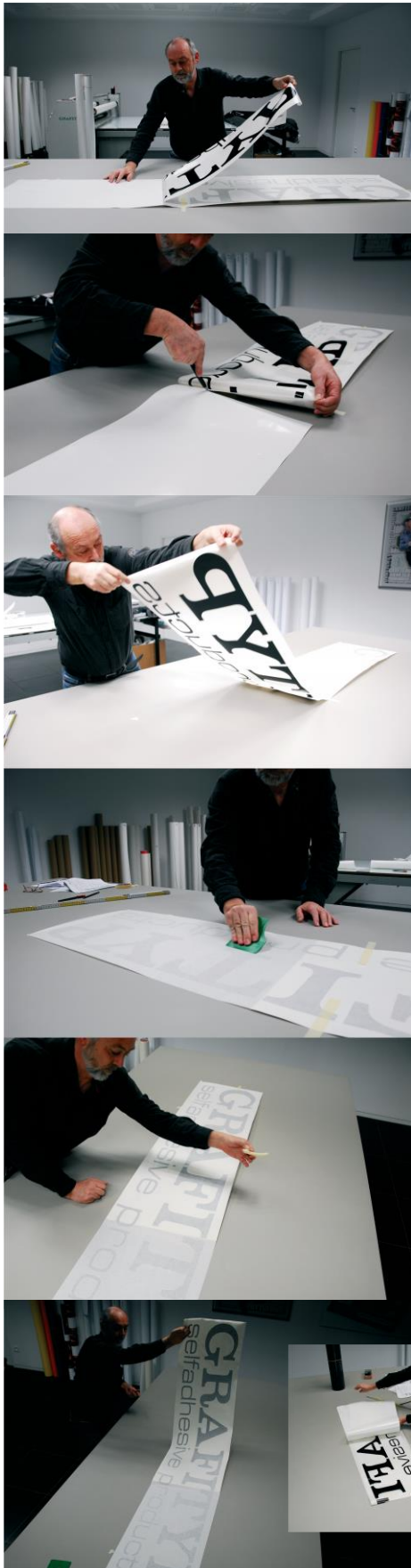


### DRY APPLICATION of small stickers

- Position the text in such a way that everything is nicely aligned.
- Draw some reference points, so you can easily replace the text in the right position afterwards. You can do so with paper tape or with a grease pencil.
- Now lay the text upside down on a table, so you can remove the backing paper.
- Start in a corner and carefully remove the backing paper at an angle towards the other side.
- In some cases it may be hard to transfer a letter to the application tape. This is mostly due to :
  1. insufficient pressure when rubbing the application tape
  2. older vinyl
  3. incorrect or older application tape. For small characters and for Graficast films, you'd better use a high tack application tape. For bigger characters you'd better use an application tape with medium or low tack.



- Now put the text back at the marked position.
- Rub the text with a hard squeegee. Again, start at the middle of the text and rub towards the outer edges, so air can escape from underneath. Adhesives are pressure-sensitive. This means that the harder you rub, the better the film will stick to the surface.
- Watch out for scratches! You will not make any scratches on the film by rubbing over the application tape with a hard squeegee. If you rub the film next to the application tape, you should be more careful, certainly on varnished surfaces. Scratches can be avoided by using a squeegee with hook and loop strip. (SPAVELC)
- If possible, we advise you to apply all texts before removing the application tape. In this way, the adhesive will have some extra time to stick to the surface.
- Then remove the application tape. Remove it under an angle of about 180°. In this way you will have less negative force on the recently applied characters.
- An air bubble can easily be punctured after the application. To do so, make a tiny hole at the edge of the air bubble and press the air towards this tiny hole. Very small air bubbles (up to 2 millimeters) will disappear automatically after some time.



### DRY APPLICATION of large stickers.

If the sticker is too big for you to apply all by yourself, you'd better ask someone to help you.

Very big letters are preferably rubbed one at a time. Each letter starting in the middle, towards the outer sides.

If you are all alone, you can also work by the "hinge method".

- .. Position your text by means of some adhesive tape.
- .. Make a vertical "hinge" in the middle of your text, using paper tape.
- .. Turn on half
- .. Remove the backing paper and cut it as straight as possible between the letters.
- .. Turn this half again, and check whether the reference points still correspond with each other.
- .. Now rub the film with the squeegee. Always do this with an overlap. Rub until you almost reach the hinge.
- .. Then remove the hinge.
- .. Now you continue with the second part of your sticker. Proceed in exactly the same way as for the first part. Attention: you continue rubbing where you left off with the first part.





## WET APPLICATION METHOD

This method makes it possible to reposition larger pieces of film with ease. There is also less chance of closing in air bubbles.

Ideal for applying larger pieces of film on panels or windows, without using application tape.

Sometimes this work method is also used for smaller jobs in case the ambient temperature is too high. (25°C – 30°C)

Add a little detergent to a bucket of water and fill a spraying bottle with this mixture. By using this mixture, it will take a lot longer for the adhesive to stick to the surface. Use this work method only on even surfaces.

Well-spread shaving foam may also be a solution. This allows you to reposition the film a couple of times, whereas the final adhesive strength will remain the same.

You may also find liquids on the market, especially for this application.

After about 48 hours the eventual adhesive strength will be just as high as in case of a dry application (on condition that the temperature does not drop below 15°C).

1. We advise you to mark the exact position with a grease pencil in this case, as paper tape may move or come loose when it becomes wet.
2. After having marked the right position, you remove the backing paper and lay the text upside down on a table.
3. Now spray the adhesive side of the stickers AND the surface completely wet.
4. Apply the film and rub it firmly, so all water will disappear from underneath it.
5. If you rub directly on the film, please use a squeegee that doesn't leave behind any scratches.
6. Depending on the ambient temperature, you will have to wait for about 2 hours before removing the application tape. If the films comes off the surface as well, you will have to wait a bit longer.
7. Rub the edges of the film firmly once again.

Some application tapes may leave behind some traces on the finished panel or glass after 24 hours.

## Colour information

It is important to note that the colour codes on the chart, along with their RAL approximates may differ from batch to batch.

### **Grafitack Promo Series Gloss**

Item Code	Description	RAL approx.	Pantone approx.
P100	Transparent	Transparent N/A	Transparent N/A
P101	White	White	9003
P105	Ivory	1025	4685
P111	Sulphur Yellow	1018	107
P117	Gold Yellow	1033	123
P122	Pastel Orange	2003	1585
P125	Light Orange	2008	166
P131	Orange Red	2002	173
P133	Light Red	2002	179
P135	Red	3000	187
P137	Dark Red	3001	194
P140	Light Blue	5012	299
P142	Azure Blue	5015	300
P144	Traffic Blue	5005	294
P146	Brilliant Blue	5010	286
P148	Royal Blue	5002	287
P149	Dark Blue	5013	280
P150	Turquoise	5018	326
P152	Lemon Green	6018	360
P153	Yellow Green	6018	361
P155	Light Green	6024	347
P156	Medium Green	6032	348
P157	Green	6029	3415
P159	Dark Green	6005	343
P163	Light Brown	8011	462
P166	Dark Brown	8014	4625
P173	Light Grey	7037	423
P176	Dark Grey	7043	425
P180	Black	Black	9005
P190	Silver	9006	Silver
P191	Gold	Gold	Gold

Please note, all Pantone approximates are derived from the RAL number. A manual inspection is essential when an absolute match is required. These values are strictly only meant for guidance purposes.

**Grafitack Promo Series Matt**

Item Code	Description	RAL approx.	Pantone approx.
P101M	White	White	9003
P111M	Sulphur Yellow	1018	107
P117M	Gold Yellow	1033	123
P122M	Pastel Orange	2003	1585
P133M	Light Red	2002	179
P135M	Red	3000	187
P137M	Dark Red	3001	194
P140M	Light Blue	5012	299
P144M	Traffic Blue	5005	294
P148M	Royal Blue	5002	287
P149M	Dark Blue	5013	280
P153M	Yellow Green	6018	361
P157M	Green	6029	3415
P173M	Light Grey	7037	423
P176M	Dark Grey	7043	425
P180M	Black	Black	9005
P190M	Silver	9006	Silver
P191M	Gold	Gold	Gold

Please note, all Pantone approximates are derived from the RAL number. A manual inspection is essential when an absolute match is required. These values are strictly only meant for guidance purposes.

**Grafitack Special Series**

Item Code	Description	RAL approx.	Pantone approx.
411	Fluorescent Yellow	1026	803
412	Fluorescent Green	6018	802
R09	Removable White	9003	White
R02	Removable Black	9005	Black

**Grafitack 100 Series Matt**

Item Code	Description	RAL approx.	Pantone approx.
1100	White	9003	White
1101	White	9016	White
1102	Yellow	1018	114
1103	Light Blue	5015	285
1104	Green	6029	336
1105	Tomato Red	3002	187
1106	Black	9004	Black
1111	Blue	5019	541
1112	Purple	4010	219
1114	Red	2002	1795
1115	Mocka	8003	4635
1116	Brown	8011	462
1117	Light Grey	7030	415
1118	Dark Grey	7012	431
1119	Orange	2003	164
1120	Beige	1014	134
1121	Lemon Yellow	1018	108
1122	Orange Yellow	1033	136
1123	Cornflower Blue	5012	299
1124	Dark Blue	5000	289
1125	Light Green	6018	368
1127	Medium Green	6032	356

Please note, all Pantone approximates are derived from the RAL number. A manual inspection is essential when an absolute match is required. These values are strictly only meant for guidance purposes.

**Grafitack 100 Series Gloss**

Item Code	Description	RAL approx.	Pantone approx.
1160	Canary Yellow	1021	108
1161	Egg Yellow	1003	123
1162	Signal Red	3020	187
1163	Forest Green	6016	343
1164	Light Blue	5012	306
1165	Medium Blue	5005	302
1166	Impulse Blue	5002	281
1167	Night Blue	5011	296
1168	Aqua Green	5021	320



1169	Cardinal Red	3002	187
1170	Beige	1014	127
1171	Lemon Yellow	1021	109
1172	Orange Yellow	1003	123
1173	Cornflower Blue	5012	2995
1174	Dark Blue	5003	289
1175	Light Green	6018	369
1176	Fir Green	6016	335
1177	Medium Green	6032	356
1178	Dark Burgundy	4004	229
1179	Dark Brown	8017	4625
1181	White	9003	White
1182	Yellow	1018	108
1183	Orange	2003	151
1184	Blue	5005	541
1185	Green	6024	348
1186	Tomato Red	3002	201
1187	Black	9005	Black
1188	Lilac	4003	244
1189	Purple	4010	234
1191	Red	2002	1795
1192	Mocka	8003	464
1193	Brown	8011	469
1194	Light Grey	7030	415
1195	Dark Grey	7012	432
1196	Sapphire Blue	5002	2747

Please note, all Pantone approximates are derived from the RAL number. A manual inspection is essential when an absolute match is required. These values are strictly only meant for guidance purposes.

### **Grafitack GEF Series Matt (PVC Free)**

Item Code	Description	RAL approx.	Pantone approx.
EFM01	White	9003	White
GEFM05	Ivory	1015	
GEFM11	Sulphur Yellow	1018	102
GEM13	Shell Yellow	1021	109
GEFM15	Yellow	1023	116
GEFM17	Gold Yellow	1033	123
GEFM22	Pastel Orange	2003	1585
GEFM25	Light Orange	2008	166

GEFM26	Orange	2008	166
GEFM31	Orange Red	2002	185
GEFM33	Light Red	2002	185
GEFM35	Red	3000	187
GEFM37	Dark Red	3001	194
GEFM38	Deep Red	3001	194
GEFM40	Light Blue	5012	299
GEFM42	Azure Blue	5015	300
GEFM44	Traffic Blue	5005	294
GEFM46	Brilliant Blue	5010	286
GEFM48	Royal Blue	5002	287
GEFM49	Dark Blue	5013	280
GEFM50	Turquoise	5018	326
GEFM52	Lemon Green	6018	360
GEFM53	Yellow Green	6018	360
GEFM54	Grass Green	6018	361
EFM55	Light Green	6024	347
GEFM56	Medium Green	6024	347
GEFM57	Green	6029	3415
GEFM59	Dark Green	6005	343
GEFM63	Light Brown	8011	462
GEFM66	Dark brown	8011	462
GEFM73	Light Gray	7037	423
GEFM76	Medium Gray	7037	423
EFM77	Grey	7043	425
EFM80	Black	9005	Black
GEFM90	Silver	Silver	Silver
GEFM91	Gold	Gold	Gold

**Grafitack GEF Series Gloss (PVC-free)**

Item Code	Description	RAL approx.	Pantone approx.
GEF01	White	9003	
GEF05	Ivory	1015	
GEF11	Sulphur Yellow	1018	102
GEF13	Shell Yellow	1021	109
GEF15	Yellow	1023	116
GEF17	Gold Yellow	1033	123
GEF22	Pastel Orange	2003	1585

GEF25	Light Orange	2008	166
GEF26	Orange	2008	166
GEF31	Orange Red	2002	185
GEF33	Light Red	2002	185
GEF35	Red	3000	187
GEF37	Dark Red	3001	194
GEF38	Deep Red	3001	194
GEF40	Light Blue	5012	299
GEF42	Azure Blue	5015	300
GEF44	Traffic Blue	5005	294
GEF46	Brilliant Blue	5010	286
GEF48	Royal Blue	5002	287
GEF49	Dark Blue	5013	280
GEF50	Turquoise	5018	326
GEF52	Lemon Green	6018	360
GEF53	Yellow Green	6018	360
GEF54	Grass Green	6018	361
GEF55	Light Green	6024	347
GEF56	Medium Green	6024	347
GEF57	Green	6029	3415
GEF59	Dark Green	6005	343
GEF63	Light Brown	8011	462
GEF66	Dark Brown	8011	462
GEF73	Light Grey	7037	423
GEF76	Medium Grey	7037	423
GEF77	Grey	7043	425
GEF80	Black	9005	Black
GEF90	Silver	Silver	Silver

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### **Grafitack 200-300 Series Gloss**

Item Code	Description	RAL approx.	Pantone approx.
1210(AE)	White	9003	White
1211	Light Beige	1014	127
1212	Dark Beige	1024	125
1214	Light Blue	5012	298
1215	Medium Blue	5010	302

1216	Night Blue	5004	5395
1219	Dark Green	6005	342
1220	Brown	8017	4625
1221(AE)	Black	9005	Black
1222	Sky Blue	5015	2995
1223	Dark Blue	5002	280
1224(AE)	Medium Green	6016	348
1227	Grass Green	6018	375c
1228	Green	6017	361
1229	Lemon Green	6019	381
1236	Pink	4003	211
1238	Purple	4007	2597
1240	Light Yellow	1018	102
1241	Sahara Yellow	1021	108
1242	Light Grey	7038	442
1243	Dark Grey	7042	443
1244	Blue	5005	301
1245	Lilac	4001	2573
1246	Aqua Green	5021	320
1247	Mint	6027	3255
1248	Magenta	4006	234
1260	Azure Blue	5015	3005
1261	Gentian	5017	286
1262(AE)	Royal Blue	5003	280
1263	Steel Grey	7005	432
1264	Granite	7043	424
1265	Signal Yellow	1003	142
1266	Brilliant Blue	- -	2735
1267	Evening Blue	5013	281
1268	Dark Red	3003	195
1273(AE)	Sunflower Yellow		
1217	Blue Grey	5024	5425
1218	Anthracite	7016	446
1225	Silver Polyester Indoor	Silver	Silver
1226	Gold Polyester Indoor	Gold	Gold
1328	Orange	1028	136
1329	Orange Brown	2000	138
1330(AE)	Orange Red	2008	166
1331(AE)	Signal Red	2002	485



1332(AE)	Tomato Red	3000	200
1333	Burgundy	3004	209
1334	Silver <u>MATT</u>	9006	877
1335	Gold <u>MATT</u>	--	871
1336	Slate-Grey	7043	445
1337	Fuchsia	4010	220
1338	Red Orange	2009	173

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### **Grafitack Translucent Series**

Item Code	Description	RAL approx.	Pantone approx.
TL1149	White	9003	White
TL1128	Yellow	1021	114
TL1129	Green	6029	2415
TL1130	Blue	5017	285
TL1131	Red	3000	1805
TL1151	Grey	7042	444
TL1207	Light Brown	3011	181
TL1211	Sea Green	6016	3275
TL1246	Aqua Green	5018	320
TL1710	Light Blue	5015	300
TL1712	Dark Blue	5003	289
TL1713	Night Blue	5010	540
TL1720	Purple	4007	2613
TL1750	Egg Yellow	1003	123
TL1755	Cornflower Blue	5002	280
TL1760	Bright Green	6018	360
TL1762	Orange	2009	166
TL1770	Fuchsia	4006	240
TL1771	Burgundy	3004	209
TL1772	Dark Brown	8016	497
TL1773	Canary Yellow	1023	109
TL1774	Orange Yellow	1028	123
TL1775	Blue Grey	7011	3308
TL1776	Laguna	5021	3282

TL1777	Fir Green	6026	3302
TL1778	Light Red	2002	179
TL1779	Cardinal Red	3001	187
TL1780	Medium Red	3020	1795
TL1781	Medium Blue	5005	294
TL1782	Apple Green	6024	354
TL1800	Black Blockout	9011	Black
TL1900	Gold	Gold	Gold
TL1901	Silver	9006	877U

Please note, all Pantone approximates are derived from the RAL number. A manual inspection is essential when an absolute match is required. These values are strictly only meant for guidance purposes.

### **Grafitack Graficast Series**

Item Code	Description	RAL approx.	Pantone approx.
SC1001	White	9003	White
SC1002	Black	9005	Black
SC1000	Transparent	Transparent	Transparent
SC1020	Light Yellow	1018	102
SC1022	Sunflower Yellow	1023	116
SC1023	Orange Yellow	1028	123
SC1030	Orange	2008	144
SC1050	Medium Red	2002	185
SC1051	Cardinal Red	3000	200
SC1054	Burgundy	3003	188
SC1055	Dark Red		
SC1100	Light Blue	5012	298
SC1101	Sky Blue	5012	299
SC1102	Olympic Blue	5015	3005
SC1103	Cosmos Blue	5005	301
SC1105	Dark Blue	5003	294
SC1106	Sapphire Blue	5013	296
SC1107	Azure Blue		
SC1123	Petrol Blue	5001	315
SC1124	Ocean Green	6033	3282
SC1125	Petrol Green	5021	3155
SC1150	Grass Green	6018	360
SC1151	Light Green	6017	361
SC1152	Green	6028	348
SC1153	Medium Green	6016	349
SC1154	Dark Green	6005	3308
SC1200	Light Grey	7038	435
SC1201	Light Grey	7042	cool grey 6c

SC1250	Light Beige	1014	1345
SC1251	Beige	1011	4505
SC1253	Mocka	8003	4635
SC1254	Chocolate	8007	478
SC1256	Signal Red	3020	186
SC1270	Emerald Green	6029	349
SC1521	Primrose Yellow Grey Ad	1021	109
SC1021	Primrose Yellow	1021	109
SC1052	Tomato Red	3002	193
SC1104	Royal Blue	5002	288
SC1110	Purple	4007	2597
SC1202	Dark Grey	7016	438
CM55	Silver Metallic	Silver	Silver
CM56	Anthracite Metallic	--	--

Please note, all Pantone approximates are derived from the RAL number. A manual inspection is essential when an absolute match is required. These values are strictly only meant for guidance purposes.

## OUR COMPLETE RANGE OF SOLUTIONS

Signmaking vinyls		Wrapping films	
<b>Monomeric</b>	<b>Cast</b>	<b>Standard</b>	
Promo-series	Graficast series	Glossy Polymeric Wrap	
100-series	<b>Non-PVC</b>	Matt Polymeric Wrap	
<b>Polymeric</b>	GEF series	Matt Super Cast	
200/300 series	<b>Translucent</b>	Gloss Super Cast	
	TL series	<b>Protective</b>	
	<b>Etched glass films</b>	Paint protection film	
<b>Print media</b>		<b>Decorative</b>	
<b>Monomeric</b>	<b>Special formula</b>	Leather	
<b>Polymeric</b>	<b>Non-PVC</b>	Pearl	
<b>Cast</b>	<b>Wall deco</b>	Colour wave	
		Metallic	
		Matt	
		Satin	
		Brushed	
		Carbon	
		Stardust	
		Flock	
Laminates			
<b>Monomeric</b>	<b>Special formula</b>		
<b>Polymeric</b>	<b>Non-PVC</b>		
<b>Cast</b>			

HOW MAY  
WE HELP YOU?

**GRAFITYP**  
makes you stick



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