

#### VIBRANTZ PIGMENTS FOR INKS

#### **About Vibrantz Technologies**

Vibrantz Technologies is a leading global supplier of technologybased performance materials, including glass-based coatings, pigments and colors, and polishing materials. Vibrantz products are sold into the building and construction, automotive, appliances, electronics, household furnishings, and industrial products markets. The Company is headquartered in Houston, Texas, USA.

Our Values and behaviors:

#### CUSTOMER FOCUS

Our customers are why we exist. We build relationships with internal and external customers that are built on trust, a desire to understand their needs and challenges, and a genuine interest in making them more successful.

#### ACCOUNTABILITY FOR PERFORMANCE

As individuals and teams, we work to achieve the highest performance standards. We prioritize safety and environmental stewardship; providing high-value solutions for our customers; and creating value for Vibrantz's shareholders.

#### INNOVATIVE THINKING

We encourage our associates to seek out new ideas for technologies and business processes, and to always look for ways to improve and to better serve our customers.

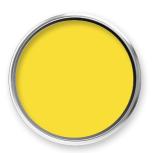
#### TEAMWORK AND COLLABORATION

We are committed to a work environment that promotes trust, mutual respect, teamwork and collaboration, and that focuses on consistently delivering value to our customers and shareholders.

## **PY3**MONOAZO YELLOW

Spec. gravity (g/cm³)	1,57
Spec. surface (m²/g)	20,10
рН	7,30
Oil absorption (g/100g)	62
<b>Light fastness</b> (oil ink 20%)	7
<b>Light fastness</b> (liquid ink 8%)	5
Heat fastness (grey scale)	3-4
Sterilization (grey scale)	3-4





0314C · Reduced Shade



# **PY13**DIARYLIDE YELLOW

<b>Spec. gravity</b> (g/cm³)	1,39
<b>Spec. surface</b> (m²/g)	55,50
pH	5,60
Oil absorption (g/100g)	49,50
<b>Light fastness</b> (oil ink 20%)	4-5
<b>Light fastness</b> (liquid ink 8%)	4
Heat fastness (grey scale)	5
Sterilization (grey scale)	5
Additional products	Lysopure 1318C · Lysopure 1319C

1314C · Full Shade



1314C · Reduced Shade



## **PY14**DIARYLIDE YELLOW

<b>Spec. gravity</b> (g/cm³)	1,54
Spec. surface $(m^2/g)$	14
рН	6,80
Oil absorption (g/100g)	49
<b>Light fastness</b> (oil ink 20%)	3
<b>Light fastness</b> (liquid ink 8%)	2
Heat fastness (grey scale)	3-4
Sterilization (grey scale)	4







## **PY17**DIARYLIDE YELLOW

Spec. gravity (g/cm³)	1,39
Spec. surface (m²/g)	36,70
рН	7,30
Oil absorption (g/100g)	42
<b>Light fastness</b> (oil ink 20%)	5-6
<b>Light fastness</b> (liquid ink 8%)	5-6
Heat fastness (grey scale)	5
Sterilization (grey scale)	5

1715C · Full Shade



1715C · Reduced Shade



# **PY73**MONOAZO YELLOW

<b>Spec. gravity</b> (g/cm³)	1,58
<b>Spec. surface</b> (m²/g)	_
рН	4,60
Oil absorption (g/100g)	58
<b>Light fastness</b> (oil ink 20%)	7
<b>Light fastness</b> (liquid ink 8%)	6-7
Heat fastness (grey scale)	3
Sterilization (grey scale)	3

#### 7312C · Full Shade





## **PY74**MONOAZO YELLOW

Spec. gravity (g/cm³)	1,38
Spec. surface (m²/g)	24,60
pH	7
Oil absorption (g/100g)	45,5
<b>Light fastness</b> (oil ink 20%)	6
<b>Light fastness</b> (liquid ink 8%)	5
Heat fastness (grey scale)	3
Sterilization (grey scale)	1–2
Additional products	7414C · 7415C · Lysopure 7418C



# **PY83**DIARYLIDE YELLOW

<b>Spec. gravity</b> (g/cm³)	1,51
Spec. surface (m²/g)	48,90
рН	4,60
Oil absorption (g/100g)	53
<b>Light fastness</b> (oil ink 20%)	6
<b>Light fastness</b> (liquid ink 8%)	5
Heat fastness (grey scale)	4-5
Sterilization (grey scale)	4-5
Additional products	8316C







## **PY83**DIARYLIDE YELLOW

<b>Spec. gravity</b> (g/cm³)	1,43
<b>Spec. surface</b> (m²/g)	90,60
рН	7
Oil absorption (g/100g)	44
<b>Light fastness</b> (oil ink 20%)	4
<b>Light fastness</b> (liquid ink 8%)	5
Heat fastness (grey scale)	5
Sterilization (grey scale)	4-5
Additional products	8318C · 8319C

8317C · Full Shade





## **PY110**ISOINDOLINONE YELLOW

Spec. gravity (g/cm³)	1,90
Spec. surface (m²/g)	29
рН	9,80
Oil absorption (g/100g)	39
<b>Light fastness</b> (oil ink 20%)	8
<b>Light fastness</b> (liquid ink 8%)	_
Heat fastness (grey scale)	5
Sterilization (grey scale)	4-5

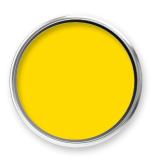




# **PY111**MONOAZO YELLOW

<b>Spec. gravity</b> (g/cm³)	1,50
Spec. surface (m²/g)	28,30
рН	7,20
Oil absorption (g/100g)	33
<b>Light fastness</b> (oil ink 20%)	4
<b>Light fastness</b> (liquid ink 8%)	6-7
Heat fastness (grey scale)	5
Sterilization (grey scale)	4
Additional products	Lysopure 1118C

1115C · Full Shade





## **PY151**

## BENZIMIDAZOLONE YELLOW

Spec. gravity (g/cm³)	1,45
<b>Spec. surface</b> (m²/g)	15
рН	9,00
Oil absorption (g/100g)	40
<b>Light fastness</b> (oil ink 20%)	7
<b>Light fastness</b> (liquid ink 8%)	7
Heat fastness (grey scale)	5
Sterilization (grey scale)	3

#### 5110C · Full Shade





### **PY155**

## BISACETOACETARYLIDE YELLOW

<b>Spec. gravity</b> (g/cm³)	1,41
<b>Spec. surface</b> (m²/g)	_
рН	7
Oil absorption (g/100g)	43,50
<b>Light fastness</b> (oil ink 20%)	7
<b>Light fastness</b> (liquid ink 8%)	7
Heat fastness (grey scale)	5
Sterilization (grey scale)	5
Additional products	Lysopure 5518P

5515C · Full Shade





# **PY170**DIARYLIDE YELLOW

<b>Spec. gravity</b> (g/cm³)	1,40
Spec. surface (m²/g)	12,10
рН	9,40
Oil absorption (g/100g)	50
<b>Light fastness</b> (oil ink 20%)	7
Light fastness (liquid ink 8%)	7
Heat fastness (grey scale)	5
Sterilization (grey scale)	5

#### 7010C · Full Shade



### **PY194**

## BENZIMIDAZOLONE YELLOW

Spec. gravity (g/cm³)	1,50
<b>Spec. surface</b> (m²/g)	19,8
рН	9,30
Oil absorption (g/100g)	68
<b>Light fastness</b> (oil ink 20%)	6
<b>Light fastness</b> (liquid ink 8%)	-
Heat fastness (grey scale)	5
Sterilization (grey scale)	3

#### 9410C · Full Shade





## DISAZOPYRAZOLONE ORANGE

<b>Spec. gravity</b> (g/cm³)	1,55
<b>Spec. surface</b> (m²/g)	54
рН	6,40
Oil absorption (g/100g)	67
<b>Light fastness</b> (oil ink 20%)	3
<b>Light fastness</b> (liquid ink 8%)	4
Heat fastness (grey scale)	4-5
Sterilization (grey scale)	4-5

#### 1323C · Full Shade





## DISAZOPYRAZOLONE ORANGE

Spec. gravity (g/cm³)	1,53
<b>Spec. surface</b> (m²/g)	46
рН	7,10
Oil absorption (g/100g)	42
<b>Light fastness</b> (oil ink 20%)	4
<b>Light fastness</b> (liquid ink 8%)	5-6
Heat fastness (grey scale)	4
Sterilization (grey scale)	4
Additional products	3427C

3424C · Full Shade



## DISAZOPYRAZOLONE ORANGE

Spec. gravity (g/cm³)	1,47
Spec. surface (m²/g)	46,3
рН	7,20
Oil absorption (g/100g)	37,6
<b>Light fastness</b> (oil ink 20%)	4
<b>Light fastness</b> (liquid ink 8%)	5-6
Heat fastness (grey scale)	4
Sterilization (grey scale)	4
Additional products	3420C · Lysopure 3428C

3426C · Full Shade



#### BENZIMIDAZOLONE ORANGE

<b>Spec. gravity</b> (g/cm³)	1,66
<b>Spec. surface</b> (m²/g)	16,10
рН	9,50
Oil absorption (g/100g)	45
<b>Light fastness</b> (oil ink 20%)	7-8
<b>Light fastness</b> (liquid ink 8%)	7-8
Heat fastness (grey scale)	5
Sterilization (grey scale)	5
Additional products	3621C

3620C · Full Shade



### BENZIMIDAZOLONE ORANGE

<b>Spec. gravity</b> (g/cm³)	1,13
Spec. surface (m <sup>2</sup> /g)	23,60
рН	7,60
Oil absorption (g/100g)	45,10
<b>Light fastness</b> (oil ink 20%)	6
<b>Light fastness</b> (liquid ink 8%)	-
Heat fastness (grey scale)	5
Sterilization (grey scale)	4







## **PR2** NAPHTHOL AS RED

<b>Spec. gravity</b> (g/cm³)	1,67
Spec. surface (m²/g)	_
рН	9,80
Oil absorption (g/100g)	45,20
<b>Light fastness</b> (oil ink 20%)	5
<b>Light fastness</b> (liquid ink 8%)	5
Heat fastness (grey scale)	3-4
Sterilization (grey scale)	3-4
Additional products	0236C



## BONA, Ba LAKE RED

<b>Spec. gravity</b> (g/cm³)	2,14
Spec. surface (m²/g)	_
рН	9
Oil absorption (g/100g)	44
<b>Light fastness</b> (oil ink 20%)	3-4
<b>Light fastness</b> (liquid ink 8%)	4
Heat fastness (grey scale)	5
Sterilization (grey scale)	4-5
Additional products	4814C

4813C · Full Shade



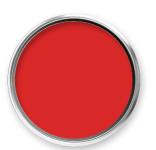
4813C · Reduced Shade



## BONA, Ca LAKE RED

<b>Spec. gravity</b> (g/cm³)	1,72
<b>Spec. surface</b> (m²/g)	-
рН	7,20
Oil absorption (g/100g)	53
<b>Light fastness</b> (oil ink 20%)	5-6
<b>Light fastness</b> (liquid ink 8%)	4-5
Heat fastness (grey scale)	4
Sterilization (grey scale)	4

#### 4822C · Full Shade

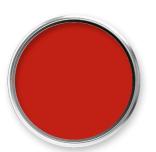




## BONA, Sr LAKE RED

<b>Spec. gravity</b> (g/cm³)	1,94
Spec. surface (m²/g)	-
рН	8,50
Oil absorption (g/100g)	43,30
<b>Light fastness</b> (oil ink 20%)	4
<b>Light fastness</b> (liquid ink 8%)	4-5
Heat fastness (grey scale)	4
Sterilization (grey scale)	4



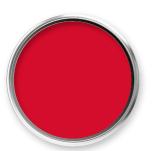




## BONA, Mn LAKE RED

<b>Spec. gravity</b> (g/cm³)	1,74
Spec. surface (m²/g)	_
рН	7,20
Oil absorption (g/100g)	64
<b>Light fastness</b> (oil ink 20%)	6-7
<b>Light fastness</b> (liquid ink 8%)	6
Heat fastness (grey scale)	4-5
Sterilization (grey scale)	4-5

#### 4846C · Full Shade

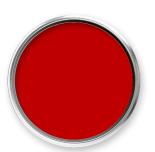




## BONA, Mn LAKE RED

<b>Spec. gravity</b> (g/cm³)	1,68
Spec. surface (m²/g)	_
рН	8,20
Oil absorption (g/100g)	60
<b>Light fastness</b> (oil ink 20%)	6
<b>Light fastness</b> (liquid ink 8%)	6
Heat fastness (grey scale)	5
Sterilization (grey scale)	3-4







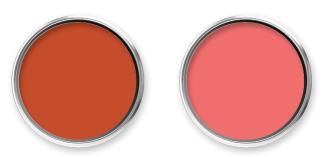
### PR53:1

### BETA-NAPHTHOL, Ba LAKE RED

<b>Spec. gravity</b> (g/cm³)	1,85
Spec. surface (m²/g)	-
рН	8,10
Oil absorption (g/100g)	46
<b>Light fastness</b> (oil ink 20%)	2
<b>Light fastness</b> (liquid ink 8%)	2-3
Heat fastness (grey scale)	3
Sterilization (grey scale)	5

#### 5315C · Full Shade

5315C · Reduced Shade



## **PR81:5**

### TRIARYLCARBONIUM RED

Spec. gravity (g/cm³) Spec. surface (m²/g)	1,71
	-
рН	3,10
Oil absorption (g/100g)	67,50
<b>Light fastness</b> (oil ink 20%)	3-4
<b>Light fastness</b> (liquid ink 8%)	4
Heat fastness (grey scale)	4-5
Sterilization (grey scale)	1
Additional products	8136N

8135N · Full Shade



8135N · Reduced Shade



## **PR122**

## QUINACRIDONE RED

<b>Spec. gravity</b> (g/cm³)	1,47
Spec. surface (m²/g)	75
рН	8,30
Oil absorption (g/100g)	55
<b>Light fastness</b> (oil ink 20%)	6-7
<b>Light fastness</b> (liquid ink 8%)	6-7
Heat fastness (grey scale)	5
Sterilization (grey scale)	4-5
Additional products	2231C

2230C · Full Shade



2230C · Reduced Shade



## **PR146**

## NAPHTHOL AS RED

Spec. gravity (g/cm³) Spec. surface (m²/g)	1,36
	_
рН	7,50
Oil absorption (g/100g)	38
<b>Light fastness</b> (oil ink 20%)	5-6
<b>Light fastness</b> (liquid ink 8%)	5-6
Heat fastness (grey scale)	5
Sterilization (grey scale)	3
Additional products	4637C







## **PR170**NAPHTHOL AS RED

<b>Spec. gravity</b> (g/cm³)	1,20
Spec. surface (m²/g)	22,50
рН	7,00
Oil absorption (g/100g)	50
<b>Light fastness</b> (oil ink 20%)	6-7
<b>Light fastness</b> (liquid ink 8%)	7
Heat fastness (grey scale)	5
Sterilization (grey scale)	5
Additional products	7030C · Lysopure 7038C







## **PR170**NAPHTHOL AS RED

<b>Spec. gravity</b> (g/cm³)	1,32
<b>Spec. surface</b> (m²/g)	30,40
рН	7,10
Oil absorption (g/100g)	56
<b>Light fastness</b> (oil ink 20%)	6
<b>Light fastness</b> (liquid ink 8%)	7
Heat fastness (grey scale)	5
Sterilization (grey scale)	3
Additional products	Lysopure 7039C







### **PR176**

## BENZIMIDAZOLONE RED

<b>Spec. gravity</b> (g/cm³)	1,39
Spec. surface (m²/g)	-
рН	6,80
Oil absorption (g/100g)	69
<b>Light fastness</b> (oil ink 20%)	6-7
<b>Light fastness</b> (liquid ink 8%)	6-7
Heat fastness (grey scale)	5
Sterilization (grey scale)	5

7635C · Full Shade



7635C · Reduced Shade



## **PR184**NAPHTHOL AS RED

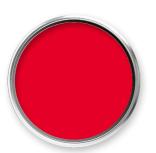
<b>Spec. gravity</b> (g/cm³)	1,36
<b>Spec. surface</b> (m²/g)	35,3
рН	7,10
Oil absorption (g/100g)	58
<b>Light fastness</b> (oil ink 20%)	5-6
<b>Light fastness</b> (liquid ink 8%)	5
Heat fastness (grey scale)	4-5
Sterilization (grey scale)	3
Additional products	Lysopure 8438C · Lysopure 8439C



## **PR266**NAPHTHOL AS RED

<b>Spec. gravity</b> (g/cm³)	1,37
Spec. surface (m²/g)	_
рН	9,90
Oil absorption (g/100g)	58,6
<b>Light fastness</b> (oil ink 20%)	4-5
<b>Light fastness</b> (liquid ink 8%)	6-7
Heat fastness (grey scale)	5
Sterilization (grey scale)	5
Additional products	7036C







#### PV2

# TRIARYLCARBONIUM VIOLET

Spec. gravity (g/cm³)	1,95
Spec. surface (m²/g)	44,20
рН	2,40
Oil absorption (g/100g)	52,250
<b>Light fastness</b> (oil ink 20%)	4
Light fastness (liquid ink 8%)	_
Heat fastness (grey scale)	4-5
Sterilization (grey scale)	4

0245N · Full Shade



#### PV3

# TRIARYLCARBONIUM VIOLET

<b>Spec. gravity</b> (g/cm³)	1,84
Spec. surface (m²/g)	37
рН	4,10
Oil absorption (g/100g)	41
<b>Light fastness</b> (oil ink 20%)	5
<b>Light fastness</b> (liquid ink 8%)	4-5
Heat fastness (grey scale)	4
Sterilization (grey scale)	4

0345N · Full Shade



#### **PV3:4**

# TRIARYLCARBONIUM VIOLET

Spec. gravity (g/cm³)	1,83
Spec. surface (m²/g)	47,40
рН	5,10
Oil absorption (g/100g)	48
<b>Light fastness</b> (oil ink 20%)	4
<b>Light fastness</b> (liquid ink 8%)	3-4
Heat fastness (grey scale)	4
Sterilization (grey scale)	4
Additional products	0347N







#### **PV19**

#### QUINACRIDONE VIOLET

Spec. gravity (g/cm³)	1,56
Spec. surface (m²/g)	81
рН	8,80
Oil absorption (g/100g)	64
<b>Light fastness</b> (oil ink 20%)	7
<b>Light fastness</b> (liquid ink 8%)	_
Heat fastness (grey scale)	5
Sterilization (grey scale)	4-5







## **PV23** DIOXAZIN VIOLET

<b>Spec. gravity</b> (g/cm³)	1,60
Spec. surface (m²/g)	-
рН	8,90
Oil absorption (g/100g)	63
<b>Light fastness</b> (oil ink 20%)	6-7
<b>Light fastness</b> (liquid ink 8%)	6-7
Heat fastness (grey scale)	4-5
Sterilization (grey scale)	4



# **PV23**DIOXAZINE VIOLET

Spec. gravity (g/cm³)	1,57
Spec. surface (m²/g)	-
рН	7,90
Oil absorption (g/100g)	48
<b>Light fastness</b> (oil ink 20%)	6-7
<b>Light fastness</b> (liquid ink 8%)	6-7
Heat fastness (grey scale)	5
Sterilization (grey scale)	3

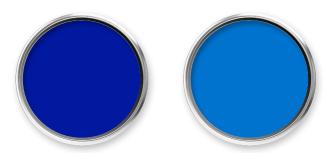


#### PB<sub>1</sub>

### TRIARYLCARBONIUM BLUE

Spec. gravity (g/cm³)	1,71
Spec. surface (m <sup>2</sup> /g)	50,20
рH	7,20
Oil absorption (g/100g)	46
<b>Light fastness</b> (oil ink 20%)	5
Light fastness (liquid ink 8%)	_
Heat fastness (grey scale)	3
Sterilization (grey scale)	3
Additional products	0154N

0151N · Full Shade

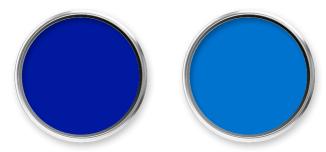


#### PB<sub>1</sub>

### TRIARYLCARBONIUM BLUE

Spec. gravity (g/cm³)	1,71
Spec. surface (m <sup>2</sup> /g)	49,4
рН	6,40
Oil absorption (g/100g)	51
<b>Light fastness</b> (oil ink 20%)	5
<b>Light fastness</b> (liquid ink 8%)	3
Heat fastness (grey scale)	3-4
Sterilization (grey scale)	3
Additional products	0153N

0155N · Full Shade



#### **PB15:1**

#### PHTHALOCYANINE BLUE

<b>Spec. gravity</b> (g/cm³)	1,64
<b>Spec. surface</b> (m²/g)	51
рН	9
Oil absorption (g/100g)	52
<b>Light fastness</b> (oil ink 20%)	5-6
<b>Light fastness</b> (liquid ink 8%)	7-8
Heat fastness (grey scale)	5
Sterilization (grey scale)	4

1511C · Full Shade

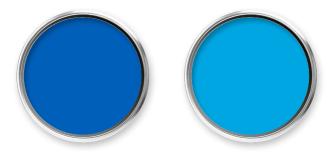
1511C · Reduced Shade

#### **PB15:3**

#### PHTHALOCYANINE BLUE

<b>Spec. gravity</b> (g/cm <sup>3</sup> )	1,63
Spec. surface (m²/g)	_
рН	7
Oil absorption (g/100g)	38
<b>Light fastness</b> (oil ink 20%)	6-7
<b>Light fastness</b> (liquid ink 8%)	7-8
Heat fastness (grey scale)	5
Sterilization (grey scale)	2
Additional products	1533C

1532C · Full Shade



#### **PB15:4**

#### PHTHALOCYANINE BLUE

<b>Spec. gravity</b> (g/cm³)	1,57
<b>Spec. surface</b> (m²/g)	28,7
рН	4
Oil absorption (g/100g)	38
<b>Light fastness</b> (oil ink 20%)	5-6
<b>Light fastness</b> (liquid ink 8%)	7-8
Heat fastness (grey scale)	5
Sterilization (grey scale)	2

1541C · Full Shade

1541C · Reduced Shade



#### PG7

#### PHTHALOCYANINE GREEN

<b>Spec. gravity</b> (g/cm³)	2,07
<b>Spec. surface</b> (m²/g)	46,50
рН	9
Oil absorption (g/100g)	44
<b>Light fastness</b> (oil ink 20%)	5-6
<b>Light fastness</b> (liquid ink 8%)	8
Heat fastness (grey scale)	5
Sterilization (grey scale)	4

0762C · Full Shade





\* The color of the digital shades may show a slight deviation from the original

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