

## #12 Belgian IPA

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- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **39**
- SRM **7.4**
- Style **Belgian IPA**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

### Steps

- Temp **63 C**, Time **45 min**
- Temp **66 C**, Time **15 min**
- Temp **77 C**, Time **5 min**

### Mash step by step

- Heat up **21 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **45 min** at **63C**
- Keep mash **15 min** at **66C**
- Keep mash **5 min** at **77C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	6 kg (85.7%)	80 %	5
Grain	Maris Otter Crisp	0.5 kg (7.1%)	83 %	6
Grain	Biscuit Malt	0.3 kg (4.3%)	79 %	45
Grain	Strzegom Karmel 150	0.2 kg (2.9%)	75 %	150

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	10 g	60 min	10 %
Boil	Marynka	15 g	40 min	10 %
Boil	Lublin (Lubelski)	25 g	40 min	4 %
Boil	Marynka	10 g	30 min	10 %
Boil	Saaz (Czech Republic)	25 g	10 min	4.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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Mangrove Jack's M41 Belgian Ale	Ale	Slant	150 ml	Mangrove Jack's
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