

## #4

- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **20**
- SRM **6.3**
- Style **Belgian IPA**

### Batch size

- Expected quantity of finished beer **16.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **21.8 liter(s)**

### Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3.7 liter(s) / kg**
- Mash size **19.1 liter(s)**
- Total mash volume **24.2 liter(s)**

### Steps

- Temp **62 C**, Time **50 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **19.1 liter(s)** of strike water to **67.7C**
- Add grains
- Keep mash **50 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **7.9 liter(s)** of **76C** water or to achieve **21.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ I	2 kg (38.8%)	79 %	16
Grain	Strzegom Pilzneński	1.8 kg (35%)	80 %	4
Grain	Słód owsiany Castlemalting	0.6 kg (11.7%)	80 %	5
Grain	Płatki owsiane	0.75 kg (14.6%)	60 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	10 g	60 min	10 %
Aroma (end of boil)	Izabella	5 g	15 min	5.1 %
Aroma (end of boil)	Polaris	5 g	15 min	19 %
Aroma (end of boil)	Izabella	5 g	5 min	5.1 %
Aroma (end of boil)	Polaris	5 g	5 min	19 %
Dry Hop	Izabella	10 g	7 day(s)	5.1 %
Dry Hop	Polaris	10 g	7 day(s)	19 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M31 Belgian Triple	Ale	Dry	10 g	Mangrove Jack's

## Notes

- refermentacja w butelkach  
3.75 g cukru/L  
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