

## #20 IPA

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **32**
- SRM **6.7**
- Style **English IPA**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

### Steps

- Temp **50 C**, Time **10 min**
- Temp **67 C**, Time **60 min**
- Temp **79 C**, Time **10 min**

### Mash step by step

- Heat up **18 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **10 min** at **50C**
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **79C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Maris Otter pale ale	2 kg (33.3%)	83 %	6
Grain	Strzegom Monachijski typ II	2 kg (33.3%)	79 %	22
Grain	Strzegom Pilzneński	2 kg (33.3%)	80 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	6.5 %
Boil	Lublin (Lubelski)	5 g	60 min	4 %
Boil	Fuggles	10 g	40 min	5.9 %
Boil	Amarillo	10 g	20 min	7 %
Aroma (end of boil)	Citra	10 g	5 min	12 %

### Yeasts

Name	Type	Form	Amount	Laboratory
us-04	Ale	Dry	11 g	safale