

## #3.1

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **50**
- SRM **6.7**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.1 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **24.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **22.4 liter(s)**

### Steps

- Temp **68 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **16.8 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **13.6 liter(s)** of **76C** water or to achieve **24.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2 kg (35.7%)	80 %	4
Grain	Strzegom Pale Ale	2 kg (35.7%)	79 %	6
Grain	Pszeniczny	0.6 kg (10.7%)	83 %	4
Grain	Karmelowy Czerwony	0.5 kg (8.9%)	75 %	60
Grain	Płatki owsiane	0.5 kg (8.9%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	20 g	60 min	11 %
Boil	Citra	15 g	15 min	13.5 %
Boil	lunga	10 g	15 min	11 %
Boil	Amarillo	12 g	5 min	8.8 %
Boil	lunga	20 g	5 min	11 %
Boil	Citra	15 g	3 min	13.5 %
Dry Hop	lunga	25 g	7 day(s)	11 %
Dry Hop	cascade pl	25 g	7 day(s)	5.2 %

### Yeasts

<b>Name</b>	<b>Type</b>	<b>Form</b>	<b>Amount</b>	<b>Laboratory</b>
US-05	Ale	Slant	300 ml	Fermentis