

## P21

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **76**
- SRM **7**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.8 liter(s)**

### Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.4 liter(s)**
- Total mash volume **15.2 liter(s)**

### Steps

- Temp **66 C**, Time **75 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **11.4 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **75 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **8.2 liter(s)** of **76C** water or to achieve **15.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2 kg (52.6%)	80 %	4
Grain	Weyermann - Pale Ale Malt	1.5 kg (39.5%)	85 %	7
Grain	Weyermann - Caraamber	0.3 kg (7.9%)	75 %	65

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	10 g	60 min	13 %
Boil	Citra	10 g	30 min	12 %
Boil	Simcoe	10 g	30 min	13.2 %
Boil	Citra	10 g	15 min	12 %
Boil	Simcoe	10 g	15 min	13.2 %
Dry Hop	Citra	30 g	5 day(s)	12 %
Dry Hop	Simcoe	30 g	5 day(s)	13.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
liberty bell	Ale	Dry	11 g	---