

z dupy

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **60**
- SRM **3.9**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **38 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **23.5 liter(s)**
- Total mash volume **31.3 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **5 min**

Mash step by step

- Heat up **23.5 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **77C**
- Sparge using **22.3 liter(s)** of **76C** water or to achieve **38 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking pale ale malt	5.43 kg (69.3%)	80 %	5
Grain	Strzegom Pilzneński	1.7 kg (21.7%)	80 %	4
Grain	pszeniczny crisp	0.7 kg (8.9%)	75 %	---

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau Blanc	30 g	60 min	11 %
Boil	warrior	20 g	40 min	16 %
Aroma (end of boil)	Citra	30 g	15 min	12 %
Aroma (end of boil)	Amarillo	40 g	3 min	9.5 %
Dry Hop	Amarillo	10 g	5 day(s)	9.5 %
Dry Hop	Centennial	70 g	5 day(s)	10.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Slant	300 ml	---