Zimne

- Gravity **17.3 BLG**
- ABV **7.4 %**
- IBU **49**
- SRM **4.3**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **5 %**
- Size with trub loss **44.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **12 %/h**
- Boil size **54.7 liter(s)**

Mash information

- Mash efficiency **82 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **44.9 liter(s)**
- Total mash volume **58.5 liter(s)**

Steps

- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **5 min**

Mash step by step

- Heat up **44.9 liter(s)** of strike water to **68.4C**
- Add grains
- Keep mash **45 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **77C**
- Sparge using **23.4 liter(s)** of **76C** water or to achieve **54.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	11.2 kg *(82.4%)*	80 %	4
Grain	Płatki ryżowe	1.6 kg *(11.8%)*	86.9 %	3
Grain	Briess - Carapils Malt	0.8 kg *(5.9%)*	74 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	16 g	60 min	13 %
Boil	Chinook	48 g	30 min	13 %
Boil	Citra	48 g	30 min	12 %
Aroma (end of boil)	Citra	64 g	0 min	12 %
Dry Hop	Mosaic	80 g	3 day(s)	12.6 %
Dry Hop	Simcoe	160 g	3 day(s)	13.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Slant	320 ml	Fermentis

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