

Ipa

- Gravity **10.7 BLG**
- ABV **4.3 %**
- IBU **80**
- SRM **4.5**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **45 liter(s)**
- Trub loss **5 %**
- Size with trub loss **47.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **57 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **27 liter(s)**
- Total mash volume **36 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **27 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **39 liter(s)** of **76C** water or to achieve **57 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2 kg (22.2%)	80 %	4
Grain	Viking Pale Ale malt	4 kg (44.4%)	80 %	5
Grain	Viking Munich Malt	2 kg (22.2%)	78 %	18
Grain	Caramel pils	1 kg (11.1%)	--- %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Eureka!	60 g	60 min	18 %
Boil	Columbus/Tomahawk/Zeus	50 g	15 min	12.4 %
Aroma (end of boil)	Eureka!	40 g	5 min	18 %
Dry Hop	Target	50 g	7 day(s)	10.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove	Ale	Slant	1000 ml	---