

# ipa

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **53**
- SRM **4.6**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **28 liter(s)**
- Trub loss **5 %**
- Size with trub loss **30.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **36.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

## Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **21 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **22.3 liter(s)** of **76C** water or to achieve **36.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (71.4%)	79 %	6
Grain	Strzegom Pszeniczny	1 kg (14.3%)	82 %	6
Grain	Caramel/Crystal Malt - 120L	1 kg (14.3%)	77 %	8

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Nugget	30 g	45 min	8.7 %
w trakcie filtracji				
Boil	Nugget	20 g	30 min	8.7 %
burzliwa				
Aroma (end of boil)	Amarillo	10 g	10 min	9.5 %
Aroma (end of boil)	Cascade	10 g	10 min	5.8 %
Aroma (end of boil)	Citra	10 g	10 min	13.1 %
Aroma (end of boil)	Amarillo	10 g	5 min	9.5 %
Aroma (end of boil)	Cascade	10 g	5 min	5.8 %
Aroma (end of boil)	Citra	10 g	5 min	13.1 %

Aroma (end of boil)	Amarillo	10 g	0 min	9.5 %
Aroma (end of boil)	Cascade	10 g	0 min	5.8 %
Aroma (end of boil)	Citra	10 g	0 min	13.1 %
Whirlpool	Amarillo	10 g	80 min	9.5 %
80 stopni chłodzenia				
Whirlpool	Cascade	10 g	80 min	6 %
80 stopni chłodzenia				
Whirlpool	Citra	10 g	80 min	12 %
80 stopni chłodzenia				
Dry Hop	Amarillo	50 g	5 day(s)	9.5 %
Dry Hop	Cascade	50 g	5 day(s)	5.8 %
Dry Hop	Citra	50 g	5 day(s)	13.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Wheat	Slant	250 ml	---