

# Grillers jasny

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **29**
- SRM **5.9**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **33 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **26 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **19.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **20 liter(s)** of **76C** water or to achieve **33 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (76.9%)	80 %	5
Grain	Strzegom Monachijski typ I	1 kg (15.4%)	79 %	16
Grain	Caramunich® typ I	0.25 kg (3.8%)	73 %	80
Grain	Barley, Flaked	0.25 kg (3.8%)	70 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Citra	15 g	0 min	12 %
Boil	Amarillo	14 g	0 min	9.5 %
Boil	Chinook	16.4 g	5 min	13 %
Boil	Aurora	13.5 g	15 min	8.5 %
Boil	Columbus/Tomahawk/Zeus	15.7 g	60 min	15.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Flavor	Skórka pomarańczy	27.6 g	Boil	0 min