

# ŽIPA

- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **81**
- SRM **9.3**
- Style **Rye IPA**

## Batch size

- Expected quantity of finished beer **33 liter(s)**
- Trub loss **5 %**
- Size with trub loss **36.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **45.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **41.4 liter(s)**
- Total mash volume **53.2 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **41.4 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **45.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	8 kg (67.6%)	80 %	5
Grain	Žytni	3.5 kg (29.6%)	85 %	8
Grain	Strzegom Czekoladowy ciemny	0.08 kg (0.7%)	68 %	1200
Grain	Strzegom Karmel 30	0.25 kg (2.1%)	75 %	30

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	80 g	60 min	11 %
Boil	Cascade	30 g	20 min	6 %
Boil	Amarillo	30 g	15 min	9.5 %
Boil	Citra	30 g	10 min	12 %
Whirlpool	Sabro	30 g	25 min	15 %
Whirlpool	Citra	30 g	25 min	12 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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FM54 Gorączka kalifornijska	Ale	Slant	180 ml	Fermentum Mobile
FM52 Amerykański Sen	Ale	Slant	250 ml	Fermentum Mobile