

# IPA 90/91

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **75**
- SRM **5.6**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **50 liter(s)**
- Trub loss **5 %**
- Size with trub loss **57.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **71.8 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **5 liter(s) / kg**
- Mash size **75 liter(s)**
- Total mash volume **90 liter(s)**

## Steps

- Temp **69 C**, Time **60 min**

## Mash step by step

- Heat up **75 liter(s)** of strike water to **73.9C**
- Add grains
- Keep mash **60 min** at **69C**
- Sparge using **11.8 liter(s)** of **76C** water or to achieve **71.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	10 kg (66.7%)	82 %	4
Grain	CaraBody	2 kg (13.3%)	72 %	8
Grain	Bestmalz Red X	2 kg (13.3%)	79 %	30
Grain	Viking Vienna Malt	1 kg (6.7%)	79 %	7

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	100 g	60 min	12.7 %
Boil	Columbus/Tomahawk/Zeus	50 g	60 min	10.7 %
Boil	Columbus/Tomahawk/Zeus	50 g	15 min	10.7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis
Lallemand - LalBrew Voss Kveik	Ale	Dry	11 g	Lallemand

## Notes

- 90 - US05 + na zimno 200g motuere
  - 91 - voss + na zimno citra to co w paczce
- Sep 26, 2023, 6:37 PM