

# Sour duple IPA

- Gravity **19.8 BLG**
- ABV **8.7 %**
- IBU **45**
- SRM **6.9**

## Batch size

- Expected quantity of finished beer **14 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **16.9 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **24 liter(s)**
- Total mash volume **30 liter(s)**

## Steps

- Temp **65 C**, Time **50 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **24 liter(s)** of strike water to **70.6C**
- Add grains
- Keep mash **50 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **-1.1 liter(s)** of **76C** water or to achieve **16.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	5 kg (83.3%)	80 %	7
Grain	Pszeniczny	1 kg (16.7%)	85 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	15 g	60 min	12 %
Boil	Mosaic	50 g	10 min	10 %
Boil	Citra	35 g	1 min	12 %
Dry Hop	Amarillo	200 g	2 day(s)	9.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Slant	100 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Other	sanprobi	10 g	Boil	36 min