

# Brown PIPA

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- Gravity **16.4 BLG**
- ABV ---
- IBU **49**
- SRM **15.7**
- Style **Brown IPA**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.4 liter(s)**
- Total mash volume **27.2 liter(s)**

## Steps

- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **20.4 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **60 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **15.4 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner Malt	5.5 kg (80.9%)	85 %	4
Grain	Viking Munich Malt	0.5 kg (7.4%)	85 %	18
Grain	Strzegom Karmel 150	0.4 kg (5.9%)	75 %	150
Grain	Strzegom Czekoladowy jasny	0.4 kg (5.9%)	68 %	400

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Perle	50 g	60 min	7 %
Boil	Lublin (Lubelski)	50 g	60 min	4 %
Aroma (end of boil)	Marynka	50 g	1 min	10 %
Aroma (end of boil)	lunga	50 g	1 min	11 %
Dry Hop	Marynka	50 g	7 day(s)	10 %
Dry Hop	lunga	50 g	7 day(s)	11 %