

# GIENEKS BITTER

- Gravity **12.7 BLG**
- ABV ---
- IBU **32**
- SRM **12.1**
- Style **Special/Best/Premium Bitter**

## Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **10 %**
- Size with trub loss **26.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **30.4 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.3 liter(s)**
- Total mash volume **24.8 liter(s)**

## Steps

- Temp **68 C**, Time **90 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **19.3 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **90 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **16.6 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	5 kg (90.9%)	80 %	7
Grain	Strzegom Karmel 150	0.5 kg (9.1%)	75 %	150

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	40 g	60 min	4.9 %
Aroma (end of boil)	Fuggles	30 g	20 min	4.9 %
Aroma (end of boil)	Fuggles	30 g	10 min	4.9 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Liquid	300 ml	Safale

## Extras

Type	Name	Amount	Use for	Time
Fining	irish moss	15 g	Boil	15 min