

# Karo's gluten free hoppy blonde ale

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- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **26**
- SRM **12.1**
- Style **Belgian Blond Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **26.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.2 liter(s)**
- Total mash volume **25.6 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **19.2 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **13.3 liter(s)** of **76C** water or to achieve **26.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Cara-Pils/Dextrine	4 kg (62.5%)	72 %	4
Grain	Briess - Caracrysal Wheat Malt	1 kg (15.6%)	78 %	108
Grain	Briess - Bonlander Munich Malt	1 kg (15.6%)	78 %	20
Grain	Barley, Flaked	0.2 kg (3.1%)	70 %	4
Grain	Oats, Flaked	0.2 kg (3.1%)	80 %	2

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	20 g	60 min	9.5 %
Aroma (end of boil)	Hallertau Blanc	20 g	15 min	5.3 %
Whirlpool	Hallertau Blanc	20 g	5 min	5.3 %
Dry Hop	Citra	20 g	5 day(s)	12.9 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-33	Ale	Dry	11 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Fining	white labs clarity ferm	20 g	Primary	9 day(s)
Water Agent	gips piowarski	2.5 g	Boil	60 min