

# German Hop

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- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **57**
- SRM **8.6**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **17 liter(s)**
- Trub loss **5 %**
- Size with trub loss **17.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **21.6 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**
- Temp **70 C**, Time **10 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **70C**
- Sparge using **11.6 liter(s)** of **76C** water or to achieve **21.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	BESTMALZ - Bestt Pale Ale	2 kg (40%)	80.5 %	6
Grain	BESTMALZ - Best Vienna	1 kg (20%)	80.5 %	9
Grain	BESTMALZ - Best Minich Dark	1 kg (20%)	80 %	28
Grain	Pszeniczny	0.35 kg (7%)	85 %	4
Grain	Cara-Pils/Dextrine	0.3 kg (6%)	72 %	4
Grain	Carabelge	0.2 kg (4%)	80 %	30
Grain	Aroma CastleMalting	0.15 kg (3%)	78 %	100

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Polaris	10 g	60 min	22.3 %
Boil	Tradition	10 g	60 min	7.7 %
Boil	Comet	10 g	10 min	8 %
Boil	Mandarina Bavaria	10 g	10 min	6.4 %
Boil	Huell Melon	10 g	10 min	7.5 %
Boil	Hallertau Blanc	10 g	10 min	9.3 %

Boil	Callista	10 g	10 min	3.7 %
Boil	Ariana	10 g	10 min	8.5 %
Boil	Cascade DE	10 g	10 min	6.7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis