

# German Pils 12/21

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- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **38**
- SRM **3.9**
- Style **German Pilsner (Pils)**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **65 min**
- Evaporation rate **13 %/h**
- Boil size **26.2 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4.5 liter(s) / kg**
- Mash size **24.3 liter(s)**
- Total mash volume **29.7 liter(s)**

## Steps

- Temp **64 C**, Time **50 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **24.3 liter(s)** of strike water to **68.9C**
- Add grains
- Keep mash **50 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **7.3 liter(s)** of **76C** water or to achieve **26.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	5 kg (92.6%)	81 %	4
Grain	Weyermann - Carapils	0.4 kg (7.4%)	78 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	35 g	60 min	10 %
Aroma (end of boil)	Hallertau Tradition	100 g	0 min	5.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	22 g	Fermentis