pils pale ale

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **33**
- SRM **3.4**
- Style **Dortmunder Export**

Batch size

- Expected quantity of finished beer **27 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **32.9 liter(s)**

Mash information

- Mash efficiency **96 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **22.5 liter(s)**

Steps

- Temp **51 C**, Time **15 min**
- Temp **67 C**, Time **60 min**

Mash step by step

- Heat up **17.5 liter(s)** of strike water to **55.4C**
- Add grains
- Keep mash **15 min** at **51C**
- Keep mash **60 min** at **67C**
- Sparge using **20.4 liter(s)** of **76C** water or to achieve **32.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg *(100%)*	80 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	9 %
Boil	Hallertau Tradition PL	20 g	60 min	5.6 %
Boil	Brewers Gold	20 g	20 min	5.2 %
Boil	Hallertau Tradition PL	20 g	10 min	5.6 %

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.