

- Gravity **12.9 BLG**
- ABV ---
- IBU **27**
- SRM **18.3**
- Style **Dunkelweizen**

### Batch size

- Expected quantity of finished beer **17.5 liter(s)**
- Trub loss **15 %**
- Size with trub loss **20.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **12 %/h**
- Boil size **24.9 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.9 liter(s)**
- Total mash volume **17.2 liter(s)**

### Steps

- Temp **62 C**, Time **10 min**
- Temp **72 C**, Time **50 min**
- Temp **79 C**, Time **15 min**

### Mash step by step

- Heat up **12.9 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **10 min** at **62C**
- Keep mash **50 min** at **72C**
- Keep mash **15 min** at **79C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **24.9 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	2 kg (46.5%)	85 %	6
Grain	Weyermann - Pale Wheat Malt	2 kg (46.5%)	85 %	4
Grain	Bestmalz - Cara Munich Type I	0.2 kg (4.7%)	75 %	90
Grain	Weyermann - Carafa II	0.1 kg (2.3%)	70 %	1150

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	45 min	10.5 %
Aroma (end of boil)	Hersbrucker	30 g	10 min	2.3 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM41 Gwoździe i Banany	Wheat	Liquid	50 ml	Fermentum Mobile