4

- Gravity **12.4 BLG**
- ABV **---**
- IBU **20**
- SRM **13.3**
- Style **Belgian Pale Ale**

Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **20.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

Steps

- Temp **64.5 C**, Time **15 min**
- Temp **67 C**, Time **45 min**
- Temp **75 C**, Time **2 min**

Mash step by step

- Heat up **12 liter(s)** of strike water to **71.9C**
- Add grains
- Keep mash **15 min** at **64.5C**
- Keep mash **45 min** at **67C**
- Keep mash **2 min** at **75C**
- Sparge using **12.2 liter(s)** of **76C** water or to achieve **20.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Best Pilsen Malt	2.5 kg *(62.5%)*	80.5 %	3.5
Grain	Munich Malt	0.25 kg *(6.3%)*	80 %	15
Grain	Best Maltz Cara Munich Type I	0.25 kg *(6.3%)*	75 %	90
Grain	Weyermann - Abbey Malt	1 kg *(25%)*	50 %	45

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	6 g	60 min	8.4 %
Boil	Styrian Goldings	20 g	15 min	3.7 %
Boil	Huell Melon	10 g	15 min	9.3 %

Yeasts

Name	Type	Form	Amount	Laboratory
WLP550 - Belgian Ale Yeast	Ale	Culture	50 g	White Labs

Extras

Type	Name	Amount	Use for	Time
Fining	Whirlfloc	2 g	Boil	10 min