test

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **21**
- SRM **4.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26 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 **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **1 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **77C**
- Sparge using **16 liter(s)** of **76C** water or to achieve **26 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	5 kg *(100%)*	85 %	7

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	15 g	60 min	12 %
Aroma (end of boil)	Citra	45 g	1 min	12 %