

spring ale

- Gravity **14 BLG**
- ABV ---
- IBU **51**
- SRM **6.2**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **21 liter(s)**

Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **4 min**
- Temp **44 C**, Time **12 min**

Mash step by step

- Heat up **15.8 liter(s)** of strike water to **48C**
- Add grains
- Keep mash **12 min** at **44C**
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **72C**
- Keep mash **4 min** at **78C**
- Sparge using **15.9 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|--------|-----|
| Grain | Weyermann - Pale Ale Malt | 3 kg (57.1%) | 85 % | 7 |
| Grain | Acid Malt | 0.25 kg (4.8%) | 58.7 % | 6 |
| Grain | Weyermann pszeniczny jasny | 2 kg (38.1%) | 80 % | 6 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------|--------|-----------|------------|
| Boil | Mosaic | 25 g | 60 min | 8 % |
| Boil | Mosaic | 25 g | 50 min | 8 % |
| Boil | Mosaic | 10 g | 20 min | 10 % |
| Boil | Mosaic | 10 g | 5 min | 10 % |
| Boil | Mosaic | 5 g | 1 min | 10 % |
| Dry Hop | Mosaic | 20 g | 10 day(s) | 10 % |
| Dry Hop | Mosaic | 20 g | 11 day(s) | 10 % |
| Dry Hop | Mosaic | 10 g | 12 day(s) | 15 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11 g | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|-------|-----------------|--------|---------|-------|
| Other | GIPS PIWOWARSKI | 4 g | Mash | 1 min |
| Other | MECH IRALNDZKI | 3 g | Boil | 5 min |