

Świąteczko w tunelu

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **40**
- SRM **4.2**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **65 min**
- Evaporation rate **10 %/h**
- Boil size **31.9 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21.5 liter(s)**
- Total mash volume **27.6 liter(s)**

Steps

- Temp **50 C**, Time **20 min**
- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **21.5 liter(s)** of strike water to **54.3C**
- Add grains
- Keep mash **20 min** at **50C**
- Keep mash **30 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **31.9 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------------|-----------------|-------|-----|
| Grain | Weyermann - Pale Ale Malt | 3.63 kg (59.2%) | 85 % | 6 |
| Grain | Extra Pale Premium Pilsner Malt | 2.5 kg (40.8%) | 80 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Marynka | 45 g | 60 min | 7.9 % |
| Boil | Lublin (Lubelski) | 45 g | 10 min | 5.7 % |

Yeasts

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