

APA Radość

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **43**
- SRM **6.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **22.5 liter(s)**

Steps

- Temp **55 C**, Time **5 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **17.5 liter(s)** of strike water to **60C**
- Add grains
- Keep mash **5 min** at **55C**
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **12.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|--------------|-------|-----|
| Grain | Weyermann - Pale Ale Malt | 3 kg (60%) | 85 % | 7 |
| Grain | Strzegom Monachijski typ I | 0.5 kg (10%) | 79 % | 16 |
| Grain | Płatki owsiane | 0.5 kg (10%) | 85 % | 3 |
| Grain | Karmelowy Jasny 30EBC | 1 kg (20%) | 75 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|--------|--------|----------|------------|
| Boil | Simcoe | 30 g | 60 min | 13.2 % |
| Whirlpool | Simcoe | 20 g | 0 min | 13.2 % |
| Dry Hop | Mosaic | 50 g | 5 day(s) | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| US-05 | Ale | Dry | 10 g | --- |