

Single Hop Kveik APA - Książęcy.

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **27**
- SRM **3.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **33 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.2 liter(s)**
- Total mash volume **25.6 liter(s)**

Steps

- Temp **72 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **19.2 liter(s)** of strike water to **80.7C**
- Add grains
- Keep mash **60 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **20.2 liter(s)** of **76C** water or to achieve **33 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|--------|-----|
| Grain | Strzegom Pilzniejszy | 3 kg (46.9%) | 80 % | 4 |
| Grain | Briess - Rye Malt | 1 kg (15.6%) | 80 % | 7 |
| Grain | Oats, Flaked | 1.2 kg (18.7%) | 80 % | 2 |
| Grain | Rye, Flaked | 0.4 kg (6.3%) | 78.3 % | 4 |
| Grain | Spelt, Flaked | 0.8 kg (12.5%) | 77 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|----------|--------|----------|------------|
| Whirlpool | Książęcy | 100 g | 20 min | 10 % |
| Dry Hop | Książęcy | 200 g | 4 day(s) | 7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------|------|-------|--------|---------------------|
| Hornindal Kveik | Ale | Slant | 40 ml | Norwegian Farmhouse |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|---------------------|--------|---------|-------|
| Water Agent | Pozywka dla drozdzy | 3 g | Boil | 2 min |

| | | | | |
|-------------|-----------------------------|-----|------|--------|
| Water Agent | Sól epsom | 3 g | Boil | 20 min |
| Water Agent | Kwas mlekowy do wysładzania | 4 g | Mash | 60 min |