

# Norweski Książę

- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **40**
- SRM **4.9**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **2 %**
- Size with trub loss **23.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.8 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.5 liter(s)**
- Total mash volume **30 liter(s)**

## Steps

- Temp **68 C**, Time **40 min**
- Temp **72 C**, Time **10 min**

## Mash step by step

- Heat up **22.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **40 min** at **68C**
- Keep mash **10 min** at **72C**
- Sparge using **13.8 liter(s)** of **76C** water or to achieve **28.8 liter(s)** of wort

## Fermentables

| Type  | Name              | Amount        | Yield | EBC |
|-------|-------------------|---------------|-------|-----|
| Grain | Pale Ale          | 4 kg (53.3%)  | 80 %  | 5   |
| Grain | Pszeniczny        | 2 kg (26.7%)  | 85 %  | 4   |
| Grain | Żytni             | 0.5 kg (6.7%) | 85 %  | 8   |
| Grain | płatki jęczmienne | 0.5 kg (6.7%) | 60 %  | 4   |
| Grain | Płatki owsiane    | 0.5 kg (6.7%) | 60 %  | 3   |

## Hops

| Use for             | Name     | Amount | Time     | Alpha acid |
|---------------------|----------|--------|----------|------------|
| Boil                | Książęcy | 50 g   | 60 min   | 7.2 %      |
| Aroma (end of boil) | Książęcy | 50 g   | 10 min   | 7.2 %      |
| Whirlpool           | Książęcy | 50 g   | 0 min    | 7.2 %      |
| Dry Hop             | Książęcy | 100 g  | 5 day(s) | 7.4 %      |

## Yeasts

| Name                         | Type | Form  | Amount | Laboratory |
|------------------------------|------|-------|--------|------------|
| WLP521 - Hornindal Kveik Ale | Ale  | Slant | 200 ml | White Labs |