

# Ciemny Witold

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **21**
- SRM **6.1**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **20.3 liter(s)**

## Steps

- Temp **62 C**, Time **30 min**
- Temp **73 C**, Time **30 min**
- Temp **77 C**, Time **10 min**

## Mash step by step

- Heat up **15.8 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **73C**
- Keep mash **10 min** at **77C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount         | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | Weyermann - Pilsner Malt    | 2.5 kg (55.6%) | 81 %  | 5   |
| Grain | Weyermann - Pale Wheat Malt | 1.3 kg (28.9%) | 85 %  | 5   |
| Grain | Wheat, Flaked               | 0.5 kg (11.1%) | 77 %  | 4   |
| Grain | Caramunich type 3           | 0.2 kg (4.4%)  | --- % | 150 |

## Hops

| Use for | Name                  | Amount | Time   | Alpha acid |
|---------|-----------------------|--------|--------|------------|
| Boil    | Styrian Golding       | 30 g   | 60 min | 3.6 %      |
| Boil    | Styrian Golding       | 10 g   | 15 min | 3.6 %      |
| Boil    | Saaz (Czech Republic) | 15 g   | 15 min | 4.5 %      |
| Boil    | Saaz (Czech Republic) | 15 g   | 5 min  | 4.5 %      |
| Boil    | Styrian Golding       | 20 g   | 5 min  | 3.6 %      |

## Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

|              |     |     |        |         |
|--------------|-----|-----|--------|---------|
| Safbrew S-33 | Ale | Dry | 11.5 g | Safbrew |
|--------------|-----|-----|--------|---------|

### Extras

| Type   | Name               | Amount | Use for | Time   |
|--------|--------------------|--------|---------|--------|
| Flavor | Sweet Orange Peel  | 20 g   | Boil    | 15 min |
| Flavor | Bitter Orange Peel | 20 g   | Boil    | 15 min |
| Spice  | Coriander Seeds    | 20 g   | Boil    | 15 min |

### Notes

- Wymieszać ześrutowany sód w wodzie o temperaturze 50°C.  
Skleikować płatki w 2.5 litrze wody w temp. 58- 64°C. Na 20 minut.  
*Oct 21, 2016, 10:10 PM*