

# Cytrusowy Rondel Zielarki

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **10**
- SRM **3.1**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.4 liter(s)**
- Total mash volume **20.5 liter(s)**

## Steps

- Temp **66 C**, Time **30 min**
- Temp **52 C**, Time **15 min**
- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **15.4 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **15 min** at **52C**
- Keep mash **60 min** at **64C**
- Keep mash **30 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **21.4 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

| Type    | Name                  | Amount          | Yield  | EBC |
|---------|-----------------------|-----------------|--------|-----|
| Grain   | Heidelberg            | 2.5 kg (39.2%)  | 80.5 % | 2   |
| Grain   | Pszeniczny            | 0.625 kg (9.8%) | 85 %   | 4   |
| Adjunct | Pszenica niesłodowana | 1.25 kg (19.6%) | 75 %   | 3   |
| Grain   | Płatki owsiane        | 0.5 kg (7.8%)   | 85 %   | 3   |
| Grain   | Płatki pszeniczne     | 0.5 kg (7.8%)   | 85 %   | 3   |
| Grain   | płatki jęczmienne     | 0.5 kg (7.8%)   | 85 %   | 3   |
| Grain   | płatki ryżowe         | 0.5 kg (7.8%)   | 85 %   | 3   |

## Hops

| Use for | Name              | Amount | Time   | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil    | Lublin (Lubelski) | 30 g   | 60 min | 4 %        |

## Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

|       |                              |      |      |        |
|-------|------------------------------|------|------|--------|
| Spice | curacao                      | 15 g | Boil | 60 min |
| Spice | curacao                      | 10 g | Boil | 15 min |
| Spice | curacao                      | 5 g  | Boil | 5 min  |
| Herb  | kolendra                     | 8 g  | Boil | 15 min |
| Herb  | kolendra                     | 7 g  | Boil | 5 min  |
| Spice | skórka pomarańczy            | 20 g | Boil | 15 min |
| Spice | skórka cytryny               | 20 g | Boil | 15 min |
| Spice | skórka pomarańczy bergamotki | 20 g | Boil | 15 min |

## Notes

- Pierwsza przerwa w 66C to kleikowanie płatków  
*Aug 16, 2019, 10:40 AM*