

# Biały Kruk

- Gravity **12.1 BLG**
- ABV ---
- IBU **24**
- SRM **5.2**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **30.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.3 liter(s)**
- Total mash volume **20.4 liter(s)**

## Steps

- Temp **52 C**, Time **20 min**
- Temp **63 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **0 min**

## Mash step by step

- Heat up **15.3 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **20 min** at **52C**
- Keep mash **60 min** at **63C**
- Keep mash **20 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **20.2 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

## Fermentables

| Type  | Name                | Amount         | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Strzegom Pale Ale   | 2.3 kg (45.1%) | 79 %  | 6   |
| Grain | Strzegom pszeniczny | 2 kg (39.2%)   | 81 %  | 6   |
| Grain | Wheat, Flaked       | 0.8 kg (15.7%) | 77 %  | 4   |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Equinox | 15 g   | 60 min | 13.1 %     |
| Boil    | Equinox | 10 g   | 5 min  | 13.1 %     |

## Yeasts

| Name                            | Type  | Form | Amount | Laboratory |
|---------------------------------|-------|------|--------|------------|
| Gozdawa Classic Belgian Witbier | Wheat | Dry  | 10 g   | ---        |

## Extras

| Type  | Name     | Amount | Use for | Time  |
|-------|----------|--------|---------|-------|
| Spice | Kolendra | 20 g   | Boil    | 5 min |

|       |                                   |      |      |       |
|-------|-----------------------------------|------|------|-------|
| Spice | Skórka pomarańczowa kandyzowana   | 30 g | Boil | 5 min |
| Spice | Skórka pomarańczowa świeżo starta | 1 g  | Boil | 5 min |
| Spice | Skórka cytrynowa                  | 1 g  | Boil | 5 min |

## Notes

- Świeża skórka z jednej pomarańczy i jednej cytryny.  
*Apr 14, 2016, 6:06 PM*