

## Afrykańskie Noce #3

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **38**
- SRM **39.6**
- Style **American Stout**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **27.2 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **18.1 liter(s)**
- Total mash volume **23.6 liter(s)**

### Steps

- Temp **53 C**, Time **10 min**
- Temp **66 C**, Time **40 min**
- Temp **71 C**, Time **20 min**
- Temp **77 C**, Time **5 min**

### Mash step by step

- Heat up **18.1 liter(s)** of strike water to **58C**
- Add grains
- Keep mash **10 min** at **53C**
- Keep mash **40 min** at **66C**
- Keep mash **20 min** at **71C**
- Keep mash **5 min** at **77C**
- Sparge using **14.6 liter(s)** of **76C** water or to achieve **27.2 liter(s)** of wort

### Fermentables

| Type  | Name                        | Amount         | Yield  | EBC  |
|-------|-----------------------------|----------------|--------|------|
| Grain | Viking Pale Ale             | 3 kg (54.5%)   | 79 %   | 7    |
| Grain | Strzegom Monachijski typ II | 1 kg (18.2%)   | 79 %   | 22   |
| Grain | Castle Cafe                 | 0.5 kg (9.1%)  | 75.5 % | 480  |
| Grain | Strzegom Karmel 300         | 0.3 kg (5.5%)  | 70 %   | 299  |
| Grain | Strzegom Czekoladowy ciemny | 0.25 kg (4.5%) | 68 %   | 1200 |
| Grain | Jęczmień palony             | 0.25 kg (4.5%) | 55 %   | 985  |
| Grain | Viking Przeniczny           | 0.2 kg (3.6%)  | 81 %   | 5    |

### Hops

| Use for             | Name     | Amount | Time     | Alpha acid |
|---------------------|----------|--------|----------|------------|
| Boil                | Simcoe   | 30 g   | 50 min   | 13.3 %     |
| Aroma (end of boil) | Simcoe   | 20 g   | 0 min    | 13.3 %     |
| Dry Hop             | Amarillo | 5 g    | 3 day(s) | 9.3 %      |
| Dry Hop             | Cascade  | 5 g    | 3 day(s) | 7.1 %      |

|         |       |     |          |        |
|---------|-------|-----|----------|--------|
| Dry Hop | Citra | 5 g | 3 day(s) | 14.2 % |
|---------|-------|-----|----------|--------|

## Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 11.5 g | Fermentis  |

## Extras

| Type   | Name     | Amount | Use for | Time     |
|--------|----------|--------|---------|----------|
| Flavor | espresso | 400 g  | Primary | 0 day(s) |