

Bezglutenowe ciemne 20l nowa receptura

- Gravity **8.3 BLG**
- ABV **3.2 %**
- IBU **31**
- SRM **---**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.5 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.7 liter(s)**
- Total mash volume **24 liter(s)**

Steps

- Temp **45 C**, Time **20 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **18.7 liter(s)** of strike water to **48.6C**
- Add grains
- Keep mash **20 min** at **45C**
- Keep mash **30 min** at **72C**
- Sparge using **12.1 liter(s)** of **76C** water or to achieve **25.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------|-----------------|-------|-----|
| Grain | Słód gryczany | 4 kg (74.9%) | 48 % | --- |
| Grain | Grys kukurydziany | 0.67 kg (12.5%) | 80 % | --- |
| Grain | Proso | 0.67 kg (12.5%) | 51 % | --- |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------|---------|--------|------------|
| Boil | Simcoe | 3.33 g | 60 min | 13.3 % |
| Boil | Simcoe | 3.33 g | 45 min | 13.3 % |
| Boil | Simcoe | 6.67 g | 30 min | 13.3 % |
| Boil | Simcoe | 13.33 g | 15 min | 13.3 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|---------|------------|
| Safale S-04 | Ale | Dry | 11.47 g | Safale |

Extras

| Type | Name | Amount | Use for | Time |
|-------|------------|---------|---------|--------|
| Spice | Pędy sosny | 13.33 g | Mash | 30 min |
| Spice | Pędy sosny | 13.33 g | Boil | 5 min |

| | | | | |
|-------|------------|---------|-----------|----------|
| Spice | Pędy sosny | 33.33 g | Secondary | 4 day(s) |
|-------|------------|---------|-----------|----------|