

Czarny rozpeł

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **70**
- SRM **48.7**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **68 C**, Time **50 min**
- Temp **72 C**, Time **1 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **50 min** at **68C**
- Keep mash **1 min** at **72C**
- Sparge using **14.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------------|---------------|--------|------|
| Grain | Thomas Fawcett Halcyon | 4 kg (72.7%) | 80.5 % | 5 |
| Grain | Briess - Roasted Barley | 0.5 kg (9.1%) | 55 % | 591 |
| Grain | Briess - Chocolate Malt | 0.5 kg (9.1%) | 60 % | 690 |
| Grain | Carafa III | 0.5 kg (9.1%) | 70 % | 1034 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil | Chinook | 50 g | 60 min | 10 % |
| Boil | Motueka | 40 g | 15 min | 7 % |
| Aroma (end of boil) | Motueka | 20 g | 1 min | 7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11.5 g | Safale |

Extras

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

| | | | | |
|--------|------|-----|------|--------|
| Fining | moss | 2 g | Boil | 15 min |
|--------|------|-----|------|--------|