

Apacz

- Gravity **15.7 BLG**
- ABV **6.6 %**
- IBU **44**
- SRM **43.3**
- Style **Robust Porter**

Batch size

- Expected quantity of finished beer **29 liter(s)**
- Trub loss **5 %**
- Size with trub loss **30.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **36.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **26.3 liter(s)**
- Total mash volume **35 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|----------------|----------------------------------|-----------------|--------|------|
| Grain | Briess - Pale Ale Malt | 4.85 kg (52.4%) | 80 % | 7 |
| Grain | Brown Malt (British Chocolate) | 1.2 kg (13%) | 70 % | 128 |
| Grain | Castle Cafe | 1.2 kg (13%) | 75.5 % | 480 |
| Grain | Strzegom Karmel 150 | 1 kg (10.8%) | 75 % | 150 |
| Grain | Fawcett - Pszeniczny Czekoladowy | 0.5 kg (5.4%) | 73 % | 1001 |
| Liquid Extract | WES ekstrakt słodowy jasny | 0.5 kg (5.4%) | 80 % | 45 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|------------|------------|--------|--------|------------|
| First Wort | Magnum | 35 g | 60 min | 13.5 % |
| Boil | Galaxy | 30 g | 5 min | 15 % |
| Boil | Centennial | 20 g | 5 min | 10.1 % |
| Whirlpool | Galaxy | 40 g | 0 min | 15 % |
| Whirlpool | Centennial | 30 g | 0 min | 10.1 % |