

Black in black

- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **57**
- SRM **32.6**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **20.2 liter(s)**

Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.8 liter(s)**
- Total mash volume **18.5 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------------|-----------------|-------|------|
| Grain | Pilznieński | 3.5 kg (75.8%) | 81 % | 4 |
| Grain | Płatki owsiane | 0.4 kg (8.7%) | 85 % | 3 |
| Grain | Strzegom Czekoladowy ciemny | 0.3 kg (6.5%) | 68 % | 1200 |
| Grain | Jęczmień palony | 0.1 kg (2.2%) | 55 % | 985 |
| Grain | Strzegom Karmel 150 | 0.315 kg (6.8%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------------|--------|--------|------------|
| Boil | Columbus/Tomahawk/Zeus | 26 g | 60 min | 15.5 % |
| Aroma (end of boil) | Columbus/Tomahawk/Zeus | 5 g | 25 min | 15 % |
| Aroma (end of boil) | Columbus/Tomahawk/Zeus | 5 g | 15 min | 15 % |