

pale ale

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **34**
- SRM **5.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|---------------|-------|-----|
| Grain | Strzegom Pilzneński | 5 kg (71.4%) | 80 % | 4 |
| Grain | Monachijski | 1 kg (14.3%) | 80 % | 16 |
| Grain | Strzegom Wiedeński | 0.5 kg (7.1%) | 79 % | 10 |
| Grain | Karmelowy Jasny 30EBC | 0.5 kg (7.1%) | 75 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------------|--------|--------|------------|
| Boil | Columbus/Tomahawk/Zeus | 30 g | 60 min | 12.5 % |
| Aroma (end of boil) | Crystal | 50 g | 1 min | 4.5 % |
| Aroma (end of boil) | Centennial | 50 g | 1 min | 10.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------------------------------|------|-------|--------|------------|
| Mangrove Jack's M44 US West Coast | Ale | Slant | 150 ml | --- |

Extras

| Type | Name | Amount | Use for | Time |
|-------|-------|--------|---------|--------|
| Spice | sumak | 25 g | Boil | 15 min |