

"철도노반공사 수량 및 단가산출 표준" 개정(안) 신·구문 비교표

구 분	번호	공 종	단위	당 초	변 경	개정사유																																																															
수량산출 기준				3.숏크리트 가. 숏크리트 생산비 2)의 가) : 숏크리트의 생산량은 숏크리트의 표준지보패턴별로 설계 타설량과 리바운드량 및 여굴채움량(여굴량의 50%)을 합산하여 산출한다.	좌 동	-																																																															
	3 3.01 a	숏크리트 숏크리트생산비 숏크리트생산비 (강섬유보강)	m³	1. 숏크리트 리바운드량 산출 <table><tr><td>패턴별</td><td>상 반</td><td>하 반</td><td>계</td></tr><tr><td>TYPE-1</td><td>221.20</td><td>67.82</td><td>269.02</td></tr><tr><td>TYPE-2</td><td>442.40</td><td>135.70</td><td>578.10</td></tr><tr><td>TYPE-3</td><td>549.44</td><td>168.00</td><td>717.44</td></tr><tr><td>TYPE-4</td><td>389.79</td><td>118.89</td><td>508.68</td></tr><tr><td>TYPE-5</td><td>242.92</td><td>33.64</td><td>276.56</td></tr><tr><td>갱구부</td><td>144.50</td><td>-</td><td>144.50</td></tr><tr><td>계</td><td>1990.25</td><td>524.05</td><td>2514.30</td></tr></table> ∴ 수량산출:((1990.25*0.13)+(524.05*0.10))/2514.30 = 0.124 2. 배치플랜트사용료(60m³/hr) q1 = 1.00m³ , E = 0.65 , Cm = 2.50분 Q=(60분*1.00m³*0.65)*(1/2.50분*(1-0.124))=13.67m³/hr 3. 배치플랜트가동시보조인원(배합기록장치운영요원1인포함) ∴ 보통인부:2인/13.67m³/hr/8hr = 0.018인/m³· 4. 시멘트구입밋운반:441kg/(1-0.124)*1.02(할증)=513.49kg 시멘트(벌크):513.49kg 5. 숏크리트 골재 및 혼화제 1) 모래운반 및 구입비 ∴ 수량산출:1173kg/m³/1600kg/m³/(1-0.124)*1.10(할증) = 0.921m³ 2) 쇄석골재운반(D10mm) ∴ 수량산출:782kg/m³/1700kg/m³/(1-0.124)*1.03(할증) = 0.541m³ 3) 물사용량:234kg/(1-0.124)*1/1000kg = 0.267ton 4) 숏크리트혼화제 ① 급결제(액상,Shot-L,액체):513.49kg*5% = 25.675kg ② 유동화제:4.40kg/(1-0.124) = 5.03kg ③ 강섬유(ZP 30/0.5):37kg/(1-0.124) = 42.285kg	패턴별	상 반	하 반	계	TYPE-1	221.20	67.82	269.02	TYPE-2	442.40	135.70	578.10	TYPE-3	549.44	168.00	717.44	TYPE-4	389.79	118.89	508.68	TYPE-5	242.92	33.64	276.56	갱구부	144.50	-	144.50	계	1990.25	524.05	2514.30	1. 숏크리트 리바운드량 산출 <table><tr><td>패턴별</td><td>상 반</td><td>하 반</td><td>계</td></tr><tr><td>TYPE-1</td><td>221.20</td><td>67.82</td><td>269.02</td></tr><tr><td>TYPE-2</td><td>442.40</td><td>135.70</td><td>578.10</td></tr><tr><td>TYPE-3</td><td>549.44</td><td>168.00</td><td>717.44</td></tr><tr><td>TYPE-4</td><td>389.79</td><td>118.89</td><td>508.68</td></tr><tr><td>TYPE-5</td><td>242.92</td><td>33.64</td><td>276.56</td></tr><tr><td>갱구부</td><td>144.50</td><td>-</td><td>144.50</td></tr><tr><td>계</td><td>1990.25</td><td>524.05</td><td>2514.30</td></tr></table> ∴ 수량산출:((1990.25*0.13)+(524.05*0.10))/2514.30 = 0.124 2. 배치플랜트사용료(60m³/hr) q1 = 1.00m³ , E = 0.65 , Cm = 2.50분 Q=(60분*1.00m³*0.65)*(1/2.50분)=15.60m³/hr 3. 배치플랜트가동시보조인원(배합기록장치운영요원1인포함) ∴ 보통인부:2인/15.60m³/hr/8hr = 0.016인/m³· 4. 시멘트구입밋운반:441kg*1.02(할증)=449.82kg 시멘트(벌크):449.82kg 5. 숏크리트 골재 및 혼화제 1) 모래운반 및 구입비 ∴ 수량산출:1173kg/m³/1600kg/m³*1.10(할증) = 0.806m³ 2) 쇄석골재운반(D10mm) ∴ 수량산출:782kg/m³/1700kg/m³*1.03(할증) = 0.474m³ 3) 물사용량:234kg*1/1000kg = 0.234ton 4) 숏크리트혼화제 ① 급결제(액상,Shot-L,액체):513.49kg*5% = 25.675kg ② 유동화제:4.40kg ③ 강섬유(ZP 30/0.5):37kg	패턴별	상 반	하 반	계	TYPE-1	221.20	67.82	269.02	TYPE-2	442.40	135.70	578.10	TYPE-3	549.44	168.00	717.44	TYPE-4	389.79	118.89	508.68	TYPE-5	242.92	33.64	276.56	갱구부	144.50	-	144.50	계	1990.25	524.05	2514.30
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				<p>6. 골재투입(타이어로우더 1.72m³)</p> <p>1) 모래골재투입능력</p> $q = 1.72\text{m}^3, E = 0.75, k = 1.20, f = 1.00$ $t1 = 6\text{초}, t2 = 14\text{초}, l = 8\text{m}, m = 1.8\text{초/m}$ $Cm = 1.8\text{초/m} \times 8\text{m} + 6\text{초} + 14\text{초} = 34.4\text{초}$ $Qs = (3600\text{초} \times 1.72\text{m}^3 \times 1.20 \times 1.00 \times 0.75) / 34.40\text{초} = 162\text{m}^3/\text{hr}$ <p>2) 자갈골재투입능력</p> $q = 1.72\text{m}^3, E = 0.60, k = 1.00, f = 1.00$ $t1 = 9\text{초}, t2 = 14\text{초}, l = 8\text{m}, m = 1.8\text{초/m}$ $Cm = 1.8\text{초/m} \times 8\text{m} + 9\text{초} + 14\text{초} = 37.4\text{초}$ $Qg = (3600\text{초} \times 1.72\text{m}^3 \times 1.00 \times 1.00 \times 0.60) / 37.40\text{초} = 99.34\text{m}^3/\text{hr}$ $Sp = 0.806\text{m}^3 / (0.806\text{m}^3 + 0.474\text{m}^3) = 0.630\text{m}^3$ $Gp = 0.474\text{m}^3 / (0.806\text{m}^3 + 0.474\text{m}^3) = 0.370\text{m}^3$ $Q2 = 162.00 \times 0.630 + 99.34 \times 0.370 = 138.820\text{m}^3/\text{hr}$ <p>3) 플랜트골재 투입능력: 5.10m³/hr</p> $QP = (0.806\text{m}^3 + 0.474\text{m}^3) \times 5.10\text{m}^3/\text{hr} = 6.528\text{m}^3/\text{hr}$ $OH = 6.528\text{m}^3/\text{hr} / 138.82\text{m}^3/\text{hr} = 0.047(\text{재료비만포함})$	<p>6. 골재투입(타이어로우더 1.72m³)</p> <p>1) 모래골재투입능력</p> $q = 1.72\text{m}^3, E = 0.75, k = 1.20, f = 1.00$ $t1 = 6\text{초}, t2 = 14\text{초}, l = 8\text{m}, m = 1.8\text{초/m}$ $Cm = 1.8\text{초/m} \times 8\text{m} + 6\text{초} + 14\text{초} = 34.4\text{초}$ $Qs = (3600\text{초} \times 1.72\text{m}^3 \times 1.20 \times 1.00 \times 0.75) / 34.40\text{초} = 162\text{m}^3/\text{hr}$ <p>2) 자갈골재투입능력</p> $q = 1.72\text{m}^3, E = 0.60, k = 1.00, f = 1.00$ $t1 = 9\text{초}, t2 = 14\text{초}, l = 8\text{m}, m = 1.8\text{초/m}$ $Cm = 1.8\text{초/m} \times 8\text{m} + 9\text{초} + 14\text{초} = 37.4\text{초}$ $Qg = (3600\text{초} \times 1.72\text{m}^3 \times 1.00 \times 1.00 \times 0.60) / 37.40\text{초} = 99.34\text{m}^3/\text{hr}$ $Sp = 0.806\text{m}^3 / (0.806\text{m}^3 + 0.474\text{m}^3) = 0.630\text{m}^3$ $Gp = 0.474\text{m}^3 / (0.806\text{m}^3 + 0.474\text{m}^3) = 0.370\text{m}^3$ $Q2 = 162.00 \times 0.630 + 99.34 \times 0.370 = 138.820\text{m}^3/\text{hr}$ <p>3) 플랜트골재 투입능력: 5.10m³/hr</p> $QP = (0.806\text{m}^3 + 0.474\text{m}^3) \times 5.10\text{m}^3/\text{hr} = 6.528\text{m}^3/\text{hr}$ $OH = 6.528\text{m}^3/\text{hr} / 138.82\text{m}^3/\text{hr} = 0.047(\text{재료비만포함})$	
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