



## STIGOPOR - D

Additive for preparing light concrete based on granules of expanded polystyrene (EPS)

Areas of application	<p>STIGOPOR-D is used as an additive in the production of light concrete based on granules of expanded polystyrene (EPS - concrete).                  EPS - concretes are a mixture of cement, granules of expanded polystyrene, sand (grain diameter 0 - 4 mm), water and additives. They have wide application in structures that require good thermal insulation characteristics and low volume mass. It is used for making of:</p> <ul style="list-style-type: none"> <li>- one layer façade elements in the housing construction</li> <li>- concrete in downfall on flat roofs</li> <li>- swimming floors</li> <li>- industrial warm floors</li> <li>- installation blocks</li> <li>- sanitary cabins, etc.</li> </ul>																																								
Product description	Cream-colored liquid, a mixture of acrylic dispersion and additives.																																								
Properties	<p>STIGOPOR-D increases the adhesion and cohesion of cement mortar and thus prevents segregation (separation) of granules of expanded polystyrene in light concrete. Due to large differences in the density of individual components (expanded polystyrene <math>\approx 0.001 - 0.003 \text{ g/cm}^3</math>, aggregate <math>\approx 2,7 \text{ g/cm}^3</math>, cement <math>\approx 3,0 \text{ g/cm}^3</math>) EPS- concrete of plastic consistency can be produced only with the addition of STIGOPOR- D.</p>																																								
Mode of use	<p>Pour 2/3 of water into the mixer, add STIGOPOR-D and sand. After mixing, add cement and the rest of the water. Mix the components. Add expanded polystyrene granules to the resulting mixture. Continue mixing until the granules are evenly coated with cement mortar. Level the built-in mixture, without compaction.</p> <p>Approximate recipe for the production of 1 m<sup>3</sup> EPS - concrete:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Density EPS - concrete</th> <th>cement</th> <th>Sands 0 – 4 mm</th> <th colspan="2">EPS granules</th> <th>water *</th> <th>STIGOPOR-D</th> </tr> <tr> <th>kg/m<sup>3</sup></th> <th>kg</th> <th>kg</th> <th>kg</th> <th>l</th> <th>l</th> <th>l</th> </tr> </thead> <tbody> <tr> <td>600</td> <td>350</td> <td>95</td> <td>14</td> <td>1100</td> <td>200</td> <td>5</td> </tr> <tr> <td>1000</td> <td>400</td> <td>430</td> <td>10,2</td> <td>800</td> <td>210</td> <td>5</td> </tr> <tr> <td>1400</td> <td>400</td> <td>830</td> <td>8,2</td> <td>650</td> <td>230</td> <td>5</td> </tr> </tbody> </table> <p>* the amount of water refers to completely dry sand</p>						Density EPS - concrete	cement	Sands 0 – 4 mm	EPS granules		water *	STIGOPOR-D	kg/m <sup>3</sup>	kg	kg	kg	l	l	l	600	350	95	14	1100	200	5	1000	400	430	10,2	800	210	5	1400	400	830	8,2	650	230	5
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Cleaning the tools	Wash the tool with water immediately after use. After bonding, hardened material can only be removed mechanically.																																								
Technical data	Density		$\approx 1 \text{ g/cm}^3$																																						
	pH value		$\approx 9,5$																																						
	Air content in fresh concrete HRN EN 12350-7		The mixture of reference concrete with STIGOPOR-D has 5.4% by volume of air, which is 3.5% by volume more than the reference concrete mix without STIGOPOR-D.																																						
	Density of EPS - concrete		600 kg/m <sup>3</sup>	1000 kg/m <sup>3</sup>	1400 kg/m <sup>3</sup>																																				
	Compressive strength after 28 days		1,4 N/mm <sup>2</sup>	5,8 N/mm <sup>2</sup>	7,5 N/mm <sup>2</sup>																																				
	Flexural strength after 28 days		1,2 N/mm <sup>2</sup>	1,6 N/mm <sup>2</sup>	2,4 N/mm <sup>2</sup>																																				
Consumption	It takes 5 l of STIGOPOR-D for preparing 1 m <sup>3</sup> EPS - concrete.																																								
Packaging	Canister of 5 l, 10 l and 25 l. Barrel of 100 l and 150 l.																																								
Storage	Protect from freezing! Store at temp. from +5°C to +30°C.																																								
Durability	1 year in the original factory packaging.																																								
Security measures	No special security measures. For detailed information see Safety technical sheet.																																								

We do not answer for any damages which would result from the wrong choice of material or its incorrect application. For all additional information, please contact us at MDK Građevinar d.o.o., STIG office - production facility, Samoborska 328, tel. 01/3456873, fax. 01/3488326, www.stig.hr, e-mail: stig@stig.hr  
 Thank you for putting your trust in us!